

Maximum Length Sequence corresponding to clone ID 1916

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 1
- Ceres seq\_id 1497851

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 2
- Ceres seq\_id 1497852
- Location of start within SEQ ID NO 1: at 70 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 1
- gi No. 3695408
- % Identity 97.3
- Alignment Length 73
- Location of Alignment in SEQ ID NO 2: from 1 to 73
- Alignment No. 2
- gi No. 4559358
- % Identity 100
- Alignment Length 100
- Location of Alignment in SEQ ID NO 2: from 89 to 188

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 3
- Ceres seq\_id 1497853
- Location of start within SEQ ID NO 1: at 334 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 3
- gi No. 4559358
- % Identity 100
- Alignment Length 100
- Location of Alignment in SEQ ID NO 3: from 1 to 100

Maximum Length Sequence corresponding to clone ID 2132

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 4
- Ceres seq\_id 1497854

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 5
- Ceres seq\_id 1497855
- Location of start within SEQ ID NO 4: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 4
- Clp protease
- Location within SEQ ID NO 5: from 87 to 275 aa.

(D) Related Amino Acid Sequences

- Alignment No. 5
- gi No. 5360589
- % Identity 99.3
- Alignment Length 279
- Location of Alignment in SEQ ID NO 5: from 17 to 295

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 6
- Ceres seq\_id 1497856
- Location of start within SEQ ID NO 4: at 49 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 6
- Clp protease
- Location within SEQ ID NO 6: from 71 to 259 aa.

(D) Related Amino Acid Sequences

- Alignment No. 7
- gi No. 5360589
- % Identity 99.3
- Alignment Length 279
- Location of Alignment in SEQ ID NO 6: from 1 to 279

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 7
- Ceres seq\_id 1497857
- Location of start within SEQ ID NO 4: at 247 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 8
- Clp protease
- Location within SEQ ID NO 7: from 5 to 193 aa.

(D) Related Amino Acid Sequences

- Alignment No. 9
- gi No. 5360589
- % Identity 99.3
- Alignment Length 279
- Location of Alignment in SEQ ID NO 7: from 1 to 213

Maximum Length Sequence corresponding to clone ID 2806

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 8
- Ceres seq\_id 1497860

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 9
- Ceres seq\_id 1497861
- Location of start within SEQ ID NO 8: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 10
- Ribosomal protein L17
- Location within SEQ ID NO 9: from 28 to 124 aa.

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 10
- Ceres seq\_id 1497862
- Location of start within SEQ ID NO 8: at 35 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 11
- Ribosomal protein L17

- Location within SEQ ID NO 10: from 17 to 113 aa.

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 11
- Ceres seq\_id 1497863
- Location of start within SEQ ID NO 8: at 77 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 12
- Ribosomal protein L17
- Location within SEQ ID NO 11: from 3 to 99 aa.

(D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 2955

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 12
- Ceres seq\_id 1497864

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 13
- Ceres seq\_id 1497865
- Location of start within SEQ ID NO 12: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 13
- Aminotransferases class-I
- Location within SEQ ID NO 13: from 2 to 126 aa.

(D) Related Amino Acid Sequences

- Alignment No. 14
- gi No. 3549670
- % Identity 99.2
- Alignment Length 126
- Location of Alignment in SEQ ID NO 13: from 2 to 126

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 14
- Ceres seq\_id 1497866
- Location of start within SEQ ID NO 12: at 94 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 15
- Aminotransferases class-I
- Location within SEQ ID NO 14: from 1 to 95 aa.

(D) Related Amino Acid Sequences

- Alignment No. 16
- gi No. 3549670
- % Identity 99.2
- Alignment Length 126
- Location of Alignment in SEQ ID NO 14: from 1 to 95

Maximum Length Sequence corresponding to clone ID 3599

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 15
- Ceres seq\_id 1497867

- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 16
  - Ceres seq\_id 1497868
  - Location of start within SEQ ID NO 15: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 17
  - Ceres seq\_id 1497869
  - Location of start within SEQ ID NO 15: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 18
  - Ceres seq\_id 1497870
  - Location of start within SEQ ID NO 15: at 184 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- (D) Related Amino Acid Sequences
  - Alignment No. 17
  - gi No. 2244771
  - % Identity 94.3
  - Alignment Length 87
  - Location of Alignment in SEQ ID NO 18: from 1 to 81

Maximum Length Sequence corresponding to clone ID 3916

- (A) Polynucleotide Sequence
  - Pat. Appln. SEQ ID NO 19
  - Ceres seq\_id 1497875
- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 20
  - Ceres seq\_id 1497876
  - Location of start within SEQ ID NO 19: at 151 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- (D) Related Amino Acid Sequences
  - Alignment No. 18
  - gi No. 3142300
  - % Identity 100
  - Alignment Length 766
  - Location of Alignment in SEQ ID NO 20: from 1 to 766

- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 21
  - Ceres seq\_id 1497877
  - Location of start within SEQ ID NO 19: at 169 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- (D) Related Amino Acid Sequences
  - Alignment No. 19
  - gi No. 3142300
  - % Identity 100



- Alignment Length 766
- Location of Alignment in SEQ ID NO 21: from 1 to 760

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 22
- Ceres seq\_id 1497878
- Location of start within SEQ ID NO 19: at 604 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 20
- gi No. 3142300
- % Identity 100
- Alignment Length 766
- Location of Alignment in SEQ ID NO 22: from 1 to 615

Maximum Length Sequence corresponding to clone ID 5256

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 23
- Ceres seq\_id 1497883

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 24
- Ceres seq\_id 1497884
- Location of start within SEQ ID NO 23: at 86 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 21
- Dehydrins
- Location within SEQ ID NO 24: from 1 to 83 aa.

- Alignment No. 22
- Dehydrins
- Location within SEQ ID NO 24: from 1 to 185 aa.

(D) Related Amino Acid Sequences

- Alignment No. 23
- gi No. 1169340
- % Identity 75
- Alignment Length 20
- Location of Alignment in SEQ ID NO 24: from 164 to 183

- Alignment No. 24
- gi No. 118480
- % Identity 70.6
- Alignment Length 17
- Location of Alignment in SEQ ID NO 24: from 164 to 180

- Alignment No. 25
- gi No. 118482
- % Identity 72.7
- Alignment Length 11
- Location of Alignment in SEQ ID NO 24: from 27 to 37

- Alignment No. 26
- gi No. 118575
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 24: from 1 to 185

- Alignment No. 27
- gi No. 1488312
- % Identity 73.7
- Alignment Length 19
- Location of Alignment in SEQ ID NO 24: from 165 to 183
  
- Alignment No. 28
- gi No. 1592670
- % Identity 98.4
- Alignment Length 185
- Location of Alignment in SEQ ID NO 24: from 1 to 185
  
- Alignment No. 29
- gi No. 231983
- % Identity 76.5
- Alignment Length 17
- Location of Alignment in SEQ ID NO 24: from 164 to 180
  
- Alignment No. 30
- gi No. 231983
- % Identity 70.4
- Alignment Length 55
- Location of Alignment in SEQ ID NO 24: from 105 to 157
  
- Alignment No. 31
- gi No. 282900
- % Identity 78.9
- Alignment Length 19
- Location of Alignment in SEQ ID NO 24: from 163 to 181
  
- Alignment No. 32
- gi No. 72319
- % Identity 75
- Alignment Length 20
- Location of Alignment in SEQ ID NO 24: from 164 to 183

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 25
- Ceres seq\_id 1497885
- Location of start within SEQ ID NO 23: at 182 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 33
- Dehydrins
- Location within SEQ ID NO 25: from 1 to 51 aa.
  
- Alignment No. 34
- Dehydrins
- Location within SEQ ID NO 25: from 1 to 153 aa.

(D) Related Amino Acid Sequences

- Alignment No. 35
- gi No. 1169340
- % Identity 75
- Alignment Length 20
- Location of Alignment in SEQ ID NO 25: from 132 to 151
  
- Alignment No. 36
- gi No. 118480
- % Identity 70.6

- Alignment Length 17
- Location of Alignment in SEQ ID NO 25: from 132 to 148
  
- Alignment No. 37
- gi No. 118575
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 25: from 1 to 153
  
- Alignment No. 38
- gi No. 1488312
- % Identity 73.7
- Alignment Length 19
- Location of Alignment in SEQ ID NO 25: from 133 to 151
  
- Alignment No. 39
- gi No. 1592670
- % Identity 98.4
- Alignment Length 185
- Location of Alignment in SEQ ID NO 25: from 1 to 153
  
- Alignment No. 40
- gi No. 231983
- % Identity 76.5
- Alignment Length 17
- Location of Alignment in SEQ ID NO 25: from 132 to 148
  
- Alignment No. 41
- gi No. 231983
- % Identity 70.4
- Alignment Length 55
- Location of Alignment in SEQ ID NO 25: from 73 to 125
  
- Alignment No. 42
- gi No. 282900
- % Identity 78.9
- Alignment Length 19
- Location of Alignment in SEQ ID NO 25: from 131 to 149
  
- Alignment No. 43
- gi No. 72319
- % Identity 75
- Alignment Length 20
- Location of Alignment in SEQ ID NO 25: from 132 to 151

Maximum Length Sequence corresponding to clone ID 6324

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 26
- Ceres seq\_id 1497886

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 27
- Ceres seq\_id 1497887
- Location of start within SEQ ID NO 26: at 41 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 44
- gi No. 2246378
- % Identity 84.5
- Alignment Length 116

- Location of Alignment in SEQ ID NO 27: from 52 to 167
- Alignment No. 45
- gi No. 2440029
- % Identity 82.8
- Alignment Length 116
- Location of Alignment in SEQ ID NO 27: from 52 to 167
- Alignment No. 46
- gi No. 2459425
- % Identity 84.5
- Alignment Length 116
- Location of Alignment in SEQ ID NO 27: from 52 to 167
- Alignment No. 47
- gi No. 3668082
- % Identity 82.4
- Alignment Length 170
- Location of Alignment in SEQ ID NO 27: from 1 to 167

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 28
- Ceres seq\_id 1497888
- Location of start within SEQ ID NO 26: at 218 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 48
- gi No. 2246378
- % Identity 84.5
- Alignment Length 116
- Location of Alignment in SEQ ID NO 28: from 1 to 108
- Alignment No. 49
- gi No. 2440029
- % Identity 82.8
- Alignment Length 116
- Location of Alignment in SEQ ID NO 28: from 1 to 108
- Alignment No. 50
- gi No. 2459425
- % Identity 84.5
- Alignment Length 116
- Location of Alignment in SEQ ID NO 28: from 1 to 108
- Alignment No. 51
- gi No. 3668082
- % Identity 82.4
- Alignment Length 170
- Location of Alignment in SEQ ID NO 28: from 1 to 108

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 29
- Ceres seq\_id 1497889
- Location of start within SEQ ID NO 26: at 595 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 52

- gi No. 1617206
- % Identity 75
- Alignment Length 88
- Location of Alignment in SEQ ID NO 29: from 37 to 124
  
- Alignment No. 53
- gi No. 2275217
- % Identity 100
- Alignment Length 124
- Location of Alignment in SEQ ID NO 29: from 1 to 124
  
- Alignment No. 54
- gi No. 3123345
- % Identity 83.3
- Alignment Length 42
- Location of Alignment in SEQ ID NO 29: from 72 to 113
  
- Alignment No. 55
- gi No. 3123347
- % Identity 84.8
- Alignment Length 33
- Location of Alignment in SEQ ID NO 29: from 58 to 90

Maximum Length Sequence corresponding to clone ID 6401

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 30
- Ceres seq\_id 1497890

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 31
- Ceres seq\_id 1497891
- Location of start within SEQ ID NO 30: at 213 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 56
- gi No. 2911040
- % Identity 96.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 31: from 1 to 169

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 32
- Ceres seq\_id 1497892
- Location of start within SEQ ID NO 30: at 402 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 57
- gi No. 2911040
- % Identity 96.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 32: from 1 to 106

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 33
- Ceres seq\_id 1497893
- Location of start within SEQ ID NO 30: at 528 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 58
- gi No. 2911040
- % Identity 96.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 33: from 1 to 64

Maximum Length Sequence corresponding to clone ID 6501

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 34
- Ceres seq\_id 1497894

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 35
- Ceres seq\_id 1497895
- Location of start within SEQ ID NO 34: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 59
- UDP-glucuronosyl and UDP-glucosyl transferases
- Location within SEQ ID NO 35: from 291 to 370 aa.

(D) Related Amino Acid Sequences

- Alignment No. 60
- gi No. 2911049
- % Identity 93
- Alignment Length 330
- Location of Alignment in SEQ ID NO 35: from 40 to 368
- Alignment No. 61
- gi No. 4115534
- % Identity 72.7
- Alignment Length 11
- Location of Alignment in SEQ ID NO 35: from 300 to 310

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 36
- Ceres seq\_id 1497896
- Location of start within SEQ ID NO 34: at 118 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 62
- UDP-glucuronosyl and UDP-glucosyl transferases
- Location within SEQ ID NO 36: from 252 to 331 aa.

(D) Related Amino Acid Sequences

- Alignment No. 63
- gi No. 2911049
- % Identity 93
- Alignment Length 330
- Location of Alignment in SEQ ID NO 36: from 1 to 329
- Alignment No. 64
- gi No. 4115534
- % Identity 72.7
- Alignment Length 11
- Location of Alignment in SEQ ID NO 36: from 261 to 271

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 37
- Ceres seq\_id 1497897
- Location of start within SEQ ID NO 34: at 154 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 65
- UDP-glucuronosyl and UDP-glucosyl transferases
- Location within SEQ ID NO 37: from 240 to 319 aa.

(D) Related Amino Acid Sequences

- Alignment No. 66
- gi No. 2911049
- % Identity 93
- Alignment Length 330
- Location of Alignment in SEQ ID NO 37: from 1 to 317
- Alignment No. 67
- gi No. 4115534
- % Identity 72.7
- Alignment Length 11
- Location of Alignment in SEQ ID NO 37: from 249 to 259

Maximum Length Sequence corresponding to clone ID 6550

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 38
- Ceres seq\_id 1497898

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 39
- Ceres seq\_id 1497899
- Location of start within SEQ ID NO 38: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 68
- gi No. 4539292
- % Identity 88.4
- Alignment Length 140
- Location of Alignment in SEQ ID NO 39: from 1 to 138

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 40
- Ceres seq\_id 1497900
- Location of start within SEQ ID NO 38: at 15 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 69
- gi No. 4539292
- % Identity 88.4
- Alignment Length 140
- Location of Alignment in SEQ ID NO 40: from 1 to 134

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 41
- Ceres seq\_id 1497901
- Location of start within SEQ ID NO 38: at 63 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 70
- gi No. 4539292
- % Identity 88.4
- Alignment Length 140
- Location of Alignment in SEQ ID NO 41: from 1 to 118

Maximum Length Sequence corresponding to clone ID 6606

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 42
- Ceres seq\_id 1497902

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 43
- Ceres seq\_id 1497903
- Location of start within SEQ ID NO 42: at 454 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 71
- gi No. 3033394
- % Identity 99.3
- Alignment Length 271
- Location of Alignment in SEQ ID NO 43: from 1 to 191

Maximum Length Sequence corresponding to clone ID 6685

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 44
- Ceres seq\_id 1497904

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 45
- Ceres seq\_id 1497905
- Location of start within SEQ ID NO 44: at 480 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 72
- Uncharacterized protein family
- Location within SEQ ID NO 45: from 1 to 59 aa.

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 46
- Ceres seq\_id 1497906
- Location of start within SEQ ID NO 44: at 510 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 47
- Ceres seq\_id 1497907
- Location of start within SEQ ID NO 44: at 564 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences



Maximum Length Sequence corresponding to clone ID 6745

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 48
- Ceres seq\_id 1497908

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 49
- Ceres seq\_id 1497909
- Location of start within SEQ ID NO 48: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 73
- Eukaryotic protein kinase domain
- Location within SEQ ID NO 49: from 2 to 225 aa.

(D) Related Amino Acid Sequences

- Alignment No. 74
- gi No. 1168470
- % Identity 82.9
- Alignment Length 253
- Location of Alignment in SEQ ID NO 49: from 2 to 225
- Alignment No. 75
- gi No. 1168471
- % Identity 90.3
- Alignment Length 198
- Location of Alignment in SEQ ID NO 49: from 57 to 225
- Alignment No. 76
- gi No. 1171642
- % Identity 71.6
- Alignment Length 251
- Location of Alignment in SEQ ID NO 49: from 2 to 225
- Alignment No. 77
- gi No. 1778440
- % Identity 72.3
- Alignment Length 47
- Location of Alignment in SEQ ID NO 49: from 129 to 175
- Alignment No. 78
- gi No. 1778444
- % Identity 78
- Alignment Length 59
- Location of Alignment in SEQ ID NO 49: from 106 to 164
- Alignment No. 79
- gi No. 3461835
- % Identity 92.4
- Alignment Length 253
- Location of Alignment in SEQ ID NO 49: from 2 to 225
- Alignment No. 80
- gi No. 4432889
- % Identity 90.3
- Alignment Length 198
- Location of Alignment in SEQ ID NO 49: from 57 to 225
- Alignment No. 81
- gi No. 5091529

- % Identity 71
- Alignment Length 217
- Location of Alignment in SEQ ID NO 49: from 2 to 218

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 50
- Ceres seq\_id 1497910
- Location of start within SEQ ID NO 48: at 207 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 82
- Eukaryotic protein kinase domain
- Location within SEQ ID NO 50: from 1 to 157 aa.

(D) Related Amino Acid Sequences

- Alignment No. 83
- gi No. 1168470
- % Identity 82.9
- Alignment Length 253
- Location of Alignment in SEQ ID NO 50: from 1 to 157
  
- Alignment No. 84
- gi No. 1168471
- % Identity 90.3
- Alignment Length 198
- Location of Alignment in SEQ ID NO 50: from 1 to 157
  
- Alignment No. 85
- gi No. 1171642
- % Identity 71.6
- Alignment Length 251
- Location of Alignment in SEQ ID NO 50: from 1 to 157
  
- Alignment No. 86
- gi No. 1778440
- % Identity 72.3
- Alignment Length 47
- Location of Alignment in SEQ ID NO 50: from 61 to 107
  
- Alignment No. 87
- gi No. 1778444
- % Identity 78
- Alignment Length 59
- Location of Alignment in SEQ ID NO 50: from 38 to 96
  
- Alignment No. 88
- gi No. 3461835
- % Identity 92.4
- Alignment Length 253
- Location of Alignment in SEQ ID NO 50: from 1 to 157
  
- Alignment No. 89
- gi No. 4432889
- % Identity 90.3
- Alignment Length 198
- Location of Alignment in SEQ ID NO 50: from 1 to 157
  
- Alignment No. 90
- gi No. 5091529
- % Identity 71

- Alignment Length 217
- Location of Alignment in SEQ ID NO 50: from 1 to 150

Maximum Length Sequence corresponding to clone ID 6858

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 51
- Ceres seq\_id 1497911

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 52
- Ceres seq\_id 1497912
- Location of start within SEQ ID NO 51: at 131 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 91
- gi No. 1532166
- % Identity 72.2
- Alignment Length 54
- Location of Alignment in SEQ ID NO 52: from 117 to 170

- Alignment No. 92
- gi No. 3702335
- % Identity 74.7
- Alignment Length 91
- Location of Alignment in SEQ ID NO 52: from 101 to 191

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 53
- Ceres seq\_id 1497913
- Location of start within SEQ ID NO 51: at 158 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 93
- gi No. 1532166
- % Identity 72.2
- Alignment Length 54
- Location of Alignment in SEQ ID NO 53: from 108 to 161

- Alignment No. 94
- gi No. 3702335
- % Identity 74.7
- Alignment Length 91
- Location of Alignment in SEQ ID NO 53: from 92 to 182

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 54
- Ceres seq\_id 1497914
- Location of start within SEQ ID NO 51: at 221 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 95
- gi No. 1532166
- % Identity 72.2
- Alignment Length 54
- Location of Alignment in SEQ ID NO 54: from 87 to 140

- Alignment No. 96
- gi No. 3702335
- % Identity 74.7
- Alignment Length 91
- Location of Alignment in SEQ ID NO 54: from 71 to 161

Maximum Length Sequence corresponding to clone ID 8334

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 55
- Ceres seq\_id 1497917

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 56
- Ceres seq\_id 1497918
- Location of start within SEQ ID NO 55: at 126 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 97
- gi No. 1944132
- % Identity 71.5
- Alignment Length 165
- Location of Alignment in SEQ ID NO 56: from 24 to 186

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 57
- Ceres seq\_id 1497919
- Location of start within SEQ ID NO 55: at 492 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 98
- gi No. 1944132
- % Identity 71.5
- Alignment Length 165
- Location of Alignment in SEQ ID NO 57: from 1 to 64

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 58
- Ceres seq\_id 1497920
- Location of start within SEQ ID NO 55: at 555 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 99
- gi No. 1944132
- % Identity 71.5
- Alignment Length 165
- Location of Alignment in SEQ ID NO 58: from 1 to 43

Maximum Length Sequence corresponding to clone ID 8841

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 59
- Ceres seq\_id 1497924

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 60
- Ceres seq\_id 1497925
- Location of start within SEQ ID NO 59: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted  
Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 100
- gi No. 2244762
- % Identity 74.3
- Alignment Length 152
- Location of Alignment in SEQ ID NO 60: from 25 to 176
  
- Alignment No. 101
- gi No. 3785981
- % Identity 73.7
- Alignment Length 152
- Location of Alignment in SEQ ID NO 60: from 25 to 176
  
- Alignment No. 102
- gi No. 3785982
- % Identity 71.7
- Alignment Length 152
- Location of Alignment in SEQ ID NO 60: from 25 to 176
  
- Alignment No. 103
- gi No. 755866
- % Identity 74.3
- Alignment Length 35
- Location of Alignment in SEQ ID NO 60: from 142 to 176

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 61
- Ceres seq\_id 1497926
- Location of start within SEQ ID NO 59: at 73 nt.

(C) Nomination and Annotation of Domains within Predicted  
Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 104
- gi No. 2244762
- % Identity 74.3
- Alignment Length 152
- Location of Alignment in SEQ ID NO 61: from 1 to 152
  
- Alignment No. 105
- gi No. 3785981
- % Identity 73.7
- Alignment Length 152
- Location of Alignment in SEQ ID NO 61: from 1 to 152
  
- Alignment No. 106
- gi No. 3785982
- % Identity 71.7
- Alignment Length 152
- Location of Alignment in SEQ ID NO 61: from 1 to 152
  
- Alignment No. 107
- gi No. 755866
- % Identity 74.3
- Alignment Length 35
- Location of Alignment in SEQ ID NO 61: from 118 to 152

Maximum Length Sequence corresponding to clone ID 9157

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 62
- Ceres seq\_id 1497927
- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 63
  - Ceres seq\_id 1497928
  - Location of start within SEQ ID NO 62: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 108
- Transcription factor S-II (TFIIS)
- Location within SEQ ID NO 63: from 10 to 130 aa.

(D) Related Amino Acid Sequences

- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 64
  - Ceres seq\_id 1497929
  - Location of start within SEQ ID NO 62: at 54 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 109
- Transcription factor S-II (TFIIS)
- Location within SEQ ID NO 64: from 1 to 113 aa.

(D) Related Amino Acid Sequences

- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 65
  - Ceres seq\_id 1497930
  - Location of start within SEQ ID NO 62: at 63 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 110
- Transcription factor S-II (TFIIS)
- Location within SEQ ID NO 65: from 1 to 110 aa.

(D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 9298

- (A) Polynucleotide Sequence
  - Pat. Appln. SEQ ID NO 66
  - Ceres seq\_id 1497931
- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 67
  - Ceres seq\_id 1497932
  - Location of start within SEQ ID NO 66: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 111
- DNA photolyase
- Location within SEQ ID NO 67: from 1 to 65 aa.

- (D) Related Amino Acid Sequences
  - Alignment No. 112
  - gi No. 2529668
  - % Identity 100
  - Alignment Length 79

- Location of Alignment in SEQ ID NO 67: from 1 to 79

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 68
- Ceres seq\_id 1497933
- Location of start within SEQ ID NO 66: at 13 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 113
- DNA photolyase
- Location within SEQ ID NO 68: from 1 to 61 aa.

(D) Related Amino Acid Sequences

- Alignment No. 114
- gi No. 2529668
- % Identity 100
- Alignment Length 79
- Location of Alignment in SEQ ID NO 68: from 1 to 75

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 69
- Ceres seq\_id 1497934
- Location of start within SEQ ID NO 66: at 37 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 115
- DNA photolyase
- Location within SEQ ID NO 69: from 1 to 53 aa.

(D) Related Amino Acid Sequences

- Alignment No. 116
- gi No. 2529668
- % Identity 100
- Alignment Length 79
- Location of Alignment in SEQ ID NO 69: from 1 to 67

Maximum Length Sequence corresponding to clone ID 11370

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 70
- Ceres seq\_id 1497939

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 71
- Ceres seq\_id 1497940
- Location of start within SEQ ID NO 70: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 117
- Lipase/Acylhydrolase with GDSL-like motif
- Location within SEQ ID NO 71: from 26 to 103 aa.

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 72
- Ceres seq\_id 1497941
- Location of start within SEQ ID NO 70: at 64 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 118
- Lipase/Acylhydrolase with GDSL-like motif
- Location within SEQ ID NO 72: from 5 to 82 aa.

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 73
- Ceres seq\_id 1497942
- Location of start within SEQ ID NO 70: at 67 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 119
- Lipase/Acylhydrolase with GDSL-like motif
- Location within SEQ ID NO 73: from 4 to 81 aa.

(D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 11805

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 74
- Ceres seq\_id 1497943

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 75
- Ceres seq\_id 1497944
- Location of start within SEQ ID NO 74: at 226 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 120
- gi No. 3461820
- % Identity 98.5
- Alignment Length 271
- Location of Alignment in SEQ ID NO 75: from 26 to 296

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 76
- Ceres seq\_id 1497945
- Location of start within SEQ ID NO 74: at 262 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 121
- gi No. 3461820
- % Identity 98.5
- Alignment Length 271
- Location of Alignment in SEQ ID NO 76: from 14 to 284

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 77
- Ceres seq\_id 1497946
- Location of start within SEQ ID NO 74: at 286 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences



- Alignment No. 122
- gi No. 3461820
- % Identity 98.5
- Alignment Length 271
- Location of Alignment in SEQ ID NO 77: from 6 to 276

Maximum Length Sequence corresponding to clone ID 11983

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 78
- Ceres seq\_id 1497947

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 79
- Ceres seq\_id 1497948
- Location of start within SEQ ID NO 78: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 123
- Prion protein
- Location within SEQ ID NO 79: from 44 to 152 aa.
  
- Alignment No. 124
- Prion protein
- Location within SEQ ID NO 79: from 44 to 165 aa.
  
- Alignment No. 125
- Prion protein
- Location within SEQ ID NO 79: from 55 to 165 aa.
  
- Alignment No. 126
- Synaptophysin / synaptoporin
- Location within SEQ ID NO 79: from 86 to 167 aa.
  
- Alignment No. 127
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 79: from 41 to 106 aa.
  
- Alignment No. 128
- 11-S plant seed storage protein
- Location within SEQ ID NO 79: from 31 to 191 aa.

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 80
- Ceres seq\_id 1497949
- Location of start within SEQ ID NO 78: at 74 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 129
- Prion protein
- Location within SEQ ID NO 80: from 20 to 128 aa.
  
- Alignment No. 130
- Prion protein
- Location within SEQ ID NO 80: from 20 to 141 aa.
  
- Alignment No. 131
- Prion protein
- Location within SEQ ID NO 80: from 31 to 141 aa.

- Alignment No. 132
- Synaptophysin / synaptoporin
- Location within SEQ ID NO 80: from 62 to 143 aa.
- Alignment No. 133
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 80: from 17 to 82 aa.
- Alignment No. 134
- 11-S plant seed storage protein
- Location within SEQ ID NO 80: from 7 to 167 aa.

(D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 13152

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 81
- Ceres seq\_id 1497953

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 82
- Ceres seq\_id 1497954
- Location of start within SEQ ID NO 81: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 83
- Ceres seq\_id 1497955
- Location of start within SEQ ID NO 81: at 131 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 135
- gi No. 2244771
- % Identity 97.8
- Alignment Length 136
- Location of Alignment in SEQ ID NO 83: from 1 to 134

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 84
- Ceres seq\_id 1497956
- Location of start within SEQ ID NO 81: at 275 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 136
- gi No. 2244771
- % Identity 97.8
- Alignment Length 136
- Location of Alignment in SEQ ID NO 84: from 1 to 86

Maximum Length Sequence corresponding to clone ID 13521

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 85
- Ceres seq\_id 1497957

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 86
- Ceres seq\_id 1497958
- Location of start within SEQ ID NO 85: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 87
- Ceres seq\_id 1497959
- Location of start within SEQ ID NO 85: at 146 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 137
- gi No. 4538974
- % Identity 97.9
- Alignment Length 96
- Location of Alignment in SEQ ID NO 87: from 1 to 40

Maximum Length Sequence corresponding to clone ID 14108

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 88
- Ceres seq\_id 1497963

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 89
- Ceres seq\_id 1497964
- Location of start within SEQ ID NO 88: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 138
- gi No. 100490
- % Identity 93.9
- Alignment Length 33
- Location of Alignment in SEQ ID NO 89: from 35 to 67
  
- Alignment No. 139
- gi No. 100490
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 140
- gi No. 100490
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 141
- gi No. 100490
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 142
- gi No. 100524
- % Identity 89.2

- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 143
- gi No. 100524
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 144
- gi No. 100524
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 145
- gi No. 100524
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 146
- gi No. 100524
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 147
- gi No. 100524
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 148
- gi No. 100525
- % Identity 84
- Alignment Length 25
- Location of Alignment in SEQ ID NO 89: from 31 to 55
  
- Alignment No. 149
- gi No. 100525
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 150
- gi No. 100525
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 151
- gi No. 100525
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 152
- gi No. 100525
- % Identity 89.2
- Alignment Length 37

- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 153
- gi No. 100598
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 154
- gi No. 100599
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 155
- gi No. 100812
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 156
- gi No. 100934
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 157
- gi No. 100934
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 158
- gi No. 100934
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 159
- gi No. 100934
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 160
- gi No. 100934
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 161
- gi No. 100934
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 162
- gi No. 100934
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 163
- gi No. 102062
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 164
- gi No. 102278
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 165
- gi No. 102278
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 166
- gi No. 102278
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 167
- gi No. 102278
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 168
- gi No. 102278
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 169
- gi No. 102278
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 170
- gi No. 102278
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 171
- gi No. 102279
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 172
- gi No. 102279
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 173
- gi No. 102279
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 174
- gi No. 102280
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 175
- gi No. 102280
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 176
- gi No. 102280
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 177
- gi No. 102280
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 178
- gi No. 102280
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 179
- gi No. 102281
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 180
- gi No. 102281
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 181
- gi No. 102281
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 182
- gi No. 102281
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 183

- gi No. 102281
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 184
- gi No. 102389
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 185
- gi No. 103436
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 186
- gi No. 1044940
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 187
- gi No. 104829
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 188
- gi No. 104829
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 189
- gi No. 104829
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 190
- gi No. 1050930
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 191
- gi No. 10673
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 192
- gi No. 1070590
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 193
- gi No. 1070590



- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 194
- gi No. 1070590
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 195
- gi No. 1070591
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 196
- gi No. 1070591
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 197
- gi No. 1070591
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 198
- gi No. 1070591
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 199
- gi No. 1070591
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 200
- gi No. 1070591
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 201
- gi No. 1070591
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 202
- gi No. 1070591
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 203
- gi No. 1070591
- % Identity 83.8

- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 204
- gi No. 1076708
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 205
- gi No. 1076708
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 206
- gi No. 1076708
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 207
- gi No. 1076708
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 208
- gi No. 1078777
- % Identity 73
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 209
- gi No. 1078813
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 210
- gi No. 1078813
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 211
- gi No. 1078813
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 212
- gi No. 1083758
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 213
- gi No. 1083758
- % Identity 83.8
- Alignment Length 37

- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 214
- gi No. 1083758
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 215
- gi No. 1083758
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 216
- gi No. 1083758
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 217
- gi No. 1083758
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 218
- gi No. 1083758
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 219
- gi No. 1083758
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 220
- gi No. 1083758
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 221
- gi No. 1083758
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 222
- gi No. 1101011
- % Identity 73
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 223
- gi No. 1101011
- % Identity 73
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

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- Alignment No. 224
- gi No. 1101011
- % Identity 73
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 225
- gi No. 1101011
- % Identity 73
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 226
- gi No. 1101011
- % Identity 73
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 227
- gi No. 1101011
- % Identity 73
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 228
- gi No. 1101011
- % Identity 73
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 229
- gi No. 1101011
- % Identity 73
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 230
- gi No. 1101011
- % Identity 73
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 231
- gi No. 1101013
- % Identity 77.1
- Alignment Length 35
- Location of Alignment in SEQ ID NO 89: from 33 to 67
  
- Alignment No. 232
- gi No. 1101015
- % Identity 77.1
- Alignment Length 35
- Location of Alignment in SEQ ID NO 89: from 33 to 67
  
- Alignment No. 233
- gi No. 1101019
- % Identity 71.4
- Alignment Length 35
- Location of Alignment in SEQ ID NO 89: from 33 to 67

- Alignment No. 234
- gi No. 1101021
- % Identity 77.1
- Alignment Length 35
- Location of Alignment in SEQ ID NO 89: from 33 to 67
  
- Alignment No. 235
- gi No. 1101021
- % Identity 73
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 236
- gi No. 1107481
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 237
- gi No. 1107481
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 238
- gi No. 1143188
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 239
- gi No. 1143188
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 240
- gi No. 1143188
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 241
- gi No. 1167510
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 242
- gi No. 1174859
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 243
- gi No. 1174860
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 244

- gi No. 1174861
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 245
- gi No. 1184755
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 246
- gi No. 1197093
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 247
- gi No. 1197093
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 248
- gi No. 1197093
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 249
- gi No. 1197093
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 250
- gi No. 1304128
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 251
- gi No. 1304128
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 252
- gi No. 1304128
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 253
- gi No. 1304128
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 254
- gi No. 1304128

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- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 255
- gi No. 1304128
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 256
- gi No. 1304128
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 257
- gi No. 1304128
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 258
- gi No. 1304357
- % Identity 70.3
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 259
- gi No. 1321735
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 260
- gi No. 1321735
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 261
- gi No. 1326022
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 262
- gi No. 1326022
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 263
- gi No. 1332579
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 264
- gi No. 1332579
- % Identity 89.2

- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 265
- gi No. 1332579
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 266
- gi No. 1332579
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 267
- gi No. 1332579
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 268
- gi No. 1332579
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 269
- gi No. 1332579
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 270
- gi No. 1332579
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 271
- gi No. 1332579
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 272
- gi No. 1332579
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 273
- gi No. 1351348
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 274
- gi No. 1351349
- % Identity 78.4
- Alignment Length 37



- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 275
- gi No. 1353755
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 276
- gi No. 1353757
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 277
- gi No. 1353757
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 278
- gi No. 1362008
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 279
- gi No. 1362008
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 280
- gi No. 1362008
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 281
- gi No. 1362008
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 282
- gi No. 1362009
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 283
- gi No. 1362010
- % Identity 88.6
- Alignment Length 35
- Location of Alignment in SEQ ID NO 89: from 33 to 67
- Alignment No. 284
- gi No. 1362010
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 285
- gi No. 1362010
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 286
- gi No. 1362010
- % Identity 70
- Alignment Length 40
- Location of Alignment in SEQ ID NO 89: from 28 to 67
  
- Alignment No. 287
- gi No. 1362012
- % Identity 78.1
- Alignment Length 32
- Location of Alignment in SEQ ID NO 89: from 35 to 66
  
- Alignment No. 288
- gi No. 1362012
- % Identity 76.5
- Alignment Length 34
- Location of Alignment in SEQ ID NO 89: from 34 to 67
  
- Alignment No. 289
- gi No. 1362012
- % Identity 88.6
- Alignment Length 35
- Location of Alignment in SEQ ID NO 89: from 33 to 67
  
- Alignment No. 290
- gi No. 1362012
- % Identity 75
- Alignment Length 36
- Location of Alignment in SEQ ID NO 89: from 31 to 66
  
- Alignment No. 291
- gi No. 136665
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 292
- gi No. 136666
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 293
- gi No. 136667
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 294
- gi No. 136668
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 295
- gi No. 136669
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 296
- gi No. 136670
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 297
- gi No. 136671
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 298
- gi No. 136672
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 299
- gi No. 136673
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 300
- gi No. 136674
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 301
- gi No. 136675
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 302
- gi No. 136676
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 303
- gi No. 136677
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 304
- gi No. 136678
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 305

- gi No. 1421797
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 306
- gi No. 1480012
- % Identity 92.3
- Alignment Length 26
- Location of Alignment in SEQ ID NO 89: from 42 to 67
  
- Alignment No. 307
- gi No. 156480
- % Identity 81.3
- Alignment Length 32
- Location of Alignment in SEQ ID NO 89: from 31 to 62
  
- Alignment No. 308
- gi No. 158759
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 309
- gi No. 158763
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 310
- gi No. 158765
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 311
- gi No. 158767
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 312
- gi No. 158769
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 313
- gi No. 158771
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 314
- gi No. 161281
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 315
- gi No. 163575

- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 316
- gi No. 163575
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 317
- gi No. 166336
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 318
- gi No. 166336
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 319
- gi No. 166336
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 320
- gi No. 166336
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 321
- gi No. 166336
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 322
- gi No. 166336
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 323
- gi No. 1666175
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 324
- gi No. 1675359
- % Identity 80.6
- Alignment Length 36
- Location of Alignment in SEQ ID NO 89: from 31 to 66
  
- Alignment No. 325
- gi No. 167935
- % Identity 81.1

- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 326
- gi No. 167935
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 327
- gi No. 167935
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 328
- gi No. 167935
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 329
- gi No. 167935
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 330
- gi No. 167941
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 331
- gi No. 167945
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 332
- gi No. 167945
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 333
- gi No. 167945
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 334
- gi No. 167947
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 335
- gi No. 167947
- % Identity 81.1
- Alignment Length 37

- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 336
- gi No. 167947
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 337
- gi No. 167947
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 338
- gi No. 167947
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 339
- gi No. 167947
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 340
- gi No. 167947
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 341
- gi No. 167949
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 342
- gi No. 167949
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 343
- gi No. 167949
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 344
- gi No. 167949
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 345
- gi No. 167949
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 346
- gi No. 1684855
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 347
- gi No. 1684855
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 348
- gi No. 1684855
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 349
- gi No. 1684855
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 350
- gi No. 1684857
- % Identity 96.3
- Alignment Length 27
- Location of Alignment in SEQ ID NO 89: from 41 to 67
  
- Alignment No. 351
- gi No. 1684857
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 352
- gi No. 1684857
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 353
- gi No. 170352
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 354
- gi No. 170352
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 355
- gi No. 170352
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67



- Alignment No. 356
- gi No. 170352
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 357
- gi No. 170352
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 358
- gi No. 170352
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 359
- gi No. 170354
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 360
- gi No. 170354
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 361
- gi No. 170354
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 362
- gi No. 170354
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 363
- gi No. 170354
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 364
- gi No. 1762374
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 365
- gi No. 1762935
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 366

- gi No. 1763015
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 367
- gi No. 1771780
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 368
- gi No. 1778712
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 369
- gi No. 1778712
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 370
- gi No. 1778712
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 371
- gi No. 1778712
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 372
- gi No. 1778712
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 373
- gi No. 1800281
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 374
- gi No. 1800281
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 375
- gi No. 1800281
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 376
- gi No. 1800281

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- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 377
- gi No. 1800281
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 378
- gi No. 1805696
- % Identity 88.6
- Alignment Length 35
- Location of Alignment in SEQ ID NO 89: from 33 to 67
  
- Alignment No. 379
- gi No. 1805696
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 380
- gi No. 1839584
- % Identity 87.9
- Alignment Length 33
- Location of Alignment in SEQ ID NO 89: from 31 to 63
  
- Alignment No. 381
- gi No. 208558
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 382
- gi No. 208560
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 383
- gi No. 208562
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 384
- gi No. 208564
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 385
- gi No. 208566
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 386
- gi No. 208568
- % Identity 83.8

- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 387
- gi No. 208891
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 388
- gi No. 209603
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 389
- gi No. 2118958
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 390
- gi No. 2118958
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 391
- gi No. 2118958
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 392
- gi No. 2118958
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 393
- gi No. 2118958
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 394
- gi No. 2118959
- % Identity 77.4
- Alignment Length 31
- Location of Alignment in SEQ ID NO 89: from 31 to 61
  
- Alignment No. 395
- gi No. 2118959
- % Identity 73
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 396
- gi No. 2118959
- % Identity 70.3
- Alignment Length 37

- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 397
- gi No. 2118960
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 398
- gi No. 2118960
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 399
- gi No. 2118961
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 400
- gi No. 2118961
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 401
- gi No. 2118962
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 402
- gi No. 2118962
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 403
- gi No. 2118963
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 404
- gi No. 2118964
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 405
- gi No. 2118964
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 406
- gi No. 2118964
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 407
- gi No. 2118965
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 408
- gi No. 2118965
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 409
- gi No. 2118965
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 410
- gi No. 2129452
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 411
- gi No. 2129452
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 412
- gi No. 2129452
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 413
- gi No. 2129452
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 414
- gi No. 2129452
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 415
- gi No. 2129452
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 416
- gi No. 2133278
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 417
- gi No. 2133549
- % Identity 95.5
- Alignment Length 22
- Location of Alignment in SEQ ID NO 89: from 46 to 67
  
- Alignment No. 418
- gi No. 2133549
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 419
- gi No. 2144011
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 420
- gi No. 2144275
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 421
- gi No. 2144734
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 422
- gi No. 2144734
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 423
- gi No. 2144734
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 424
- gi No. 2144734
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 425
- gi No. 2209091
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 426
- gi No. 2209091
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 427

- gi No. 223061
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 428
- gi No. 224321
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 429
- gi No. 224321
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 430
- gi No. 225317
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 431
- gi No. 225319
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 432
- gi No. 225320
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 433
- gi No. 2281952
- % Identity 85.7
- Alignment Length 35
- Location of Alignment in SEQ ID NO 89: from 33 to 67
  
- Alignment No. 434
- gi No. 2281954
- % Identity 85.7
- Alignment Length 35
- Location of Alignment in SEQ ID NO 89: from 33 to 67
  
- Alignment No. 435
- gi No. 2281955
- % Identity 82.9
- Alignment Length 35
- Location of Alignment in SEQ ID NO 89: from 33 to 67
  
- Alignment No. 436
- gi No. 2281959
- % Identity 82.9
- Alignment Length 35
- Location of Alignment in SEQ ID NO 89: from 33 to 67
  
- Alignment No. 437
- gi No. 2330875



- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 438
- gi No. 2350864
- % Identity 73
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 439
- gi No. 2408009
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 440
- gi No. 2437825
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 441
- gi No. 2437825
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 442
- gi No. 2437825
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 443
- gi No. 2437825
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 444
- gi No. 247308
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 445
- gi No. 2558539
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 446
- gi No. 2627129
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 447
- gi No. 2627129
- % Identity 83.8

- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 448
- gi No. 2627129
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 449
- gi No. 2627129
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 450
- gi No. 2627129
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 451
- gi No. 2627129
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 452
- gi No. 2627129
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 453
- gi No. 2627129
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 454
- gi No. 2627131
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 455
- gi No. 2627131
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 456
- gi No. 2627131
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 457
- gi No. 2627131
- % Identity 83.8
- Alignment Length 37

- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 458
- gi No. 2627131
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 459
- gi No. 2627131
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 460
- gi No. 2627131
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 461
- gi No. 2627131
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 462
- gi No. 2627131
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 463
- gi No. 2627131
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 464
- gi No. 2627131
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 465
- gi No. 2627133
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 466
- gi No. 2627133
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 467
- gi No. 2627133
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

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- Alignment No. 468
- gi No. 2627133
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 469
- gi No. 2627133
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 470
- gi No. 2627133
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 471
- gi No. 2627133
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 472
- gi No. 2627133
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 473
- gi No. 2627133
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 474
- gi No. 2627133
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 475
- gi No. 2627133
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 476
- gi No. 2627133
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 477
- gi No. 2627133
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 478
- gi No. 2641213
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 479
- gi No. 2641213
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 480
- gi No. 2654141
- % Identity 75
- Alignment Length 36
- Location of Alignment in SEQ ID NO 89: from 31 to 66
  
- Alignment No. 481
- gi No. 2654141
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 482
- gi No. 2654141
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 483
- gi No. 2654141
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 484
- gi No. 2654141
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 485
- gi No. 2707837
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 486
- gi No. 2707837
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 487
- gi No. 2707837
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 488

- gi No. 2707837
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 489
- gi No. 2739333
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 490
- gi No. 2739333
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 491
- gi No. 2739333
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 492
- gi No. 2739333
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 493
- gi No. 2760345
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 494
- gi No. 2760345
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 495
- gi No. 2760345
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 496
- gi No. 2760345
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 497
- gi No. 2760347
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 498
- gi No. 2760347

- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 499
- gi No. 2760347
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 500
- gi No. 2760347
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 501
- gi No. 2760347
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 502
- gi No. 2760347
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 503
- gi No. 2760349
- % Identity 88.9
- Alignment Length 36
- Location of Alignment in SEQ ID NO 89: from 31 to 66
  
- Alignment No. 504
- gi No. 2760349
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 505
- gi No. 2760349
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 506
- gi No. 2760349
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 507
- gi No. 2760349
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 508
- gi No. 279635
- % Identity 83.8

- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 509
- gi No. 279636
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 510
- gi No. 280386
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 511
- gi No. 283496
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 512
- gi No. 283496
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 513
- gi No. 283496
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 514
- gi No. 283496
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 515
- gi No. 283496
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 516
- gi No. 2894304
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 517
- gi No. 2894304
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 518
- gi No. 2894304
- % Identity 86.5
- Alignment Length 37



- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 519
- gi No. 2894304
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 520
- gi No. 2894306
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 521
- gi No. 2894308
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 522
- gi No. 2894308
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 523
- gi No. 2894308
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 524
- gi No. 2894308
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 525
- gi No. 2894308
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 526
- gi No. 2995949
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 527
- gi No. 3047314
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 528
- gi No. 3047316
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 529
- gi No. 3047318
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 530
- gi No. 3047318
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 531
- gi No. 3047318
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 532
- gi No. 3047318
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 533
- gi No. 3047318
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 534
- gi No. 3091264
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 535
- gi No. 3091264
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 536
- gi No. 3091264
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 537
- gi No. 3091264
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 538
- gi No. 3126967
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

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- Alignment No. 539
- gi No. 3126967
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 540
- gi No. 3126967
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 541
- gi No. 3126967
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 542
- gi No. 3126967
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 543
- gi No. 3126967
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 544
- gi No. 3152950
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 545
- gi No. 3158372
- % Identity 82.1
- Alignment Length 28
- Location of Alignment in SEQ ID NO 89: from 31 to 58
  
- Alignment No. 546
- gi No. 3158372
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 547
- gi No. 320608
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 548
- gi No. 320608
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 549

- gi No. 320608
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 550
- gi No. 320608
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 551
- gi No. 322750
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 552
- gi No. 323071
- % Identity 75.7
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 553
- gi No. 323157
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 554
- gi No. 323157
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 555
- gi No. 323157
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 556
- gi No. 323157
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 557
- gi No. 323157
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 558
- gi No. 323157
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 559
- gi No. 323208

- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 560
- gi No. 3265058
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 561
- gi No. 3319208
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 562
- gi No. 3335355
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 563
- gi No. 3335355
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 564
- gi No. 3335355
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 565
- gi No. 3335355
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 566
- gi No. 340062
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 567
- gi No. 3452083
- % Identity 95
- Alignment Length 20
- Location of Alignment in SEQ ID NO 89: from 48 to 67
  
- Alignment No. 568
- gi No. 3452083
- % Identity 75
- Alignment Length 24
- Location of Alignment in SEQ ID NO 89: from 31 to 54
  
- Alignment No. 569
- gi No. 348148
- % Identity 83.8

- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 570
- gi No. 348149
- % Identity 95.5
- Alignment Length 22
- Location of Alignment in SEQ ID NO 89: from 46 to 67
  
- Alignment No. 571
- gi No. 3603456
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 572
- gi No. 3603456
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 573
- gi No. 3603456
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 574
- gi No. 3687425
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 575
- gi No. 3687425
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 576
- gi No. 3687425
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 577
- gi No. 3738185
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 578
- gi No. 3738185
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 579
- gi No. 3738185
- % Identity 86.5
- Alignment Length 37

- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 580
- gi No. 3738185
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 581
- gi No. 3738185
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 582
- gi No. 3776536
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 583
- gi No. 3776536
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 584
- gi No. 3776536
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 585
- gi No. 3776536
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 586
- gi No. 3776536
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 587
- gi No. 3776536
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 588
- gi No. 3776536
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 589
- gi No. 3776536
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 590
- gi No. 3789940
- % Identity 88.2
- Alignment Length 34
- Location of Alignment in SEQ ID NO 89: from 34 to 67
  
- Alignment No. 591
- gi No. 3789940
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 592
- gi No. 3789940
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 593
- gi No. 3789940
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 594
- gi No. 3789942
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 595
- gi No. 3789942
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 596
- gi No. 3789942
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 597
- gi No. 3789942
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 598
- gi No. 3789942
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 599
- gi No. 385076
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67



- Alignment No. 600
- gi No. 3882081
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 601
- gi No. 3882081
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 602
- gi No. 3882081
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 603
- gi No. 3885463
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 604
- gi No. 3892189
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 605
- gi No. 402242
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 606
- gi No. 4049712
- % Identity 73
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 607
- gi No. 4102845
- % Identity 73
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 608
- gi No. 4105408
- % Identity 87.9
- Alignment Length 33
- Location of Alignment in SEQ ID NO 89: from 35 to 67
  
- Alignment No. 609
- gi No. 4105408
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 610

- gi No. 4105408
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 611
- gi No. 4105408
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 612
- gi No. 4115337
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 613
- gi No. 4115337
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 614
- gi No. 4115337
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 615
- gi No. 4115337
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 616
- gi No. 4115337
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 617
- gi No. 4115337
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 618
- gi No. 4150898
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 619
- gi No. 4150898
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 620
- gi No. 4150898

- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 621
- gi No. 4150898
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 622
- gi No. 4150912
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 623
- gi No. 4150912
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 624
- gi No. 4150912
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 625
- gi No. 4150912
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 626
- gi No. 4150912
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 627
- gi No. 4150914
- % Identity 88.6
- Alignment Length 35
- Location of Alignment in SEQ ID NO 89: from 33 to 67
  
- Alignment No. 628
- gi No. 4150914
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 629
- gi No. 4151082
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 630
- gi No. 418854
- % Identity 89.2

- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 631
- gi No. 418854
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 632
- gi No. 418854
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 633
- gi No. 418854
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 634
- gi No. 418854
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 635
- gi No. 418854
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 636
- gi No. 421867
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 637
- gi No. 421929
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 638
- gi No. 421929
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 639
- gi No. 421929
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 640
- gi No. 421929
- % Identity 89.2
- Alignment Length 37

- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 641
- gi No. 421929
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 642
- gi No. 421929
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 643
- gi No. 421929
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 644
- gi No. 422248
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 645
- gi No. 422248
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 646
- gi No. 422248
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 647
- gi No. 422248
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 648
- gi No. 422248
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 649
- gi No. 422269
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 650
- gi No. 422270
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 651
- gi No. 422271
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 652
- gi No. 433970
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 653
- gi No. 433970
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 654
- gi No. 433970
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 655
- gi No. 433970
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 656
- gi No. 433970
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 657
- gi No. 444791
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 658
- gi No. 444791
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 659
- gi No. 444791
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 660
- gi No. 444791
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 661
- gi No. 4506713
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 662
- gi No. 4507761
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 663
- gi No. 456779
- % Identity 70
- Alignment Length 20
- Location of Alignment in SEQ ID NO 89: from 31 to 50
  
- Alignment No. 664
- gi No. 4586594
- % Identity 85.2
- Alignment Length 27
- Location of Alignment in SEQ ID NO 89: from 31 to 57
  
- Alignment No. 665
- gi No. 4586594
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 666
- gi No. 4587232
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 667
- gi No. 4587234
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 668
- gi No. 4587236
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 669
- gi No. 4587236
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 670
- gi No. 4587236
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 671

- [illegible]



- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 682
- gi No. 463363
- % Identity 73.5
- Alignment Length 34
- Location of Alignment in SEQ ID NO 89: from 34 to 67
- Alignment No. 683
- gi No. 463365
- % Identity 79.4
- Alignment Length 34
- Location of Alignment in SEQ ID NO 89: from 34 to 67
- Alignment No. 684
- gi No. 463367
- % Identity 76.5
- Alignment Length 34
- Location of Alignment in SEQ ID NO 89: from 34 to 67
- Alignment No. 685
- gi No. 463369
- % Identity 79.4
- Alignment Length 34
- Location of Alignment in SEQ ID NO 89: from 34 to 67
- Alignment No. 686
- gi No. 463371
- % Identity 76.5
- Alignment Length 34
- Location of Alignment in SEQ ID NO 89: from 34 to 67
- Alignment No. 687
- gi No. 463373
- % Identity 82.4
- Alignment Length 34
- Location of Alignment in SEQ ID NO 89: from 34 to 67
- Alignment No. 688
- gi No. 463375
- % Identity 85.3
- Alignment Length 34
- Location of Alignment in SEQ ID NO 89: from 34 to 67
- Alignment No. 689
- gi No. 464990
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 690
- gi No. 468272
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 691
- gi No. 4737
- % Identity 91.4

- Alignment Length 35
- Location of Alignment in SEQ ID NO 89: from 33 to 67
  
- Alignment No. 692
- gi No. 477630
- % Identity 90.9
- Alignment Length 22
- Location of Alignment in SEQ ID NO 89: from 46 to 67
  
- Alignment No. 693
- gi No. 477630
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 694
- gi No. 477815
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 695
- gi No. 478811
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 696
- gi No. 478811
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 697
- gi No. 478811
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 698
- gi No. 478811
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 699
- gi No. 4809266
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 700
- gi No. 4809266
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 701
- gi No. 4809266
- % Identity 89.2
- Alignment Length 37

- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 702
- gi No. 4809266
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 703
- gi No. 4809266
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 704
- gi No. 481477
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 705
- gi No. 481477
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 706
- gi No. 481477
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 707
- gi No. 481477
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 708
- gi No. 481477
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 709
- gi No. 481477
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 710
- gi No. 485427
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 711
- gi No. 485518
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 712
- gi No. 49586
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 713
- gi No. 49586
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 714
- gi No. 49586
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 715
- gi No. 510473
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 716
- gi No. 510473
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 717
- gi No. 510473
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 718
- gi No. 510473
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 719
- gi No. 510473
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 720
- gi No. 510473
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 721
- gi No. 510473
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 722
- gi No. 510473
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 723
- gi No. 510473
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 724
- gi No. 510476
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 725
- gi No. 5107695
- % Identity 75.7
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 726
- gi No. 539404
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 727
- gi No. 539935
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 728
- gi No. 539935
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 729
- gi No. 539935
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 730
- gi No. 539935
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 731
- gi No. 541546
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 732

- gi No. 541546
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 733
- gi No. 541546
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 734
- gi No. 541546
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 735
- gi No. 541546
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 736
- gi No. 541953
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 737
- gi No. 541954
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 738
- gi No. 542395
- % Identity 100
- Alignment Length 20
- Location of Alignment in SEQ ID NO 89: from 48 to 67
  
- Alignment No. 739
- gi No. 5441519
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 740
- gi No. 552237
- % Identity 77.4
- Alignment Length 31
- Location of Alignment in SEQ ID NO 89: from 31 to 61
  
- Alignment No. 741
- gi No. 5523967
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 742
- gi No. 5523969

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- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 743
- gi No. 5523969
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 744
- gi No. 5523971
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 745
- gi No. 5523973
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 746
- gi No. 5523975
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 747
- gi No. 5523977
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 748
- gi No. 5523979
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 749
- gi No. 5523979
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 750
- gi No. 5523981
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 751
- gi No. 5523983
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 752
- gi No. 5523985
- % Identity 92.9

- Alignment Length 14
- Location of Alignment in SEQ ID NO 89: from 54 to 67
  
- Alignment No. 753
- gi No. 5523985
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 754
- gi No. 5523987
- % Identity 100
- Alignment Length 14
- Location of Alignment in SEQ ID NO 89: from 54 to 67
  
- Alignment No. 755
- gi No. 5523987
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 756
- gi No. 5531273
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 757
- gi No. 5531273
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 758
- gi No. 5531273
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 759
- gi No. 5531273
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 760
- gi No. 5531273
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 761
- gi No. 5531278
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 762
- gi No. 5531281
- % Identity 86.5
- Alignment Length 37



- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 763
- gi No. 554564
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 764
- gi No. 567767
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 765
- gi No. 567767
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 766
- gi No. 571519
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 767
- gi No. 571519
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 768
- gi No. 571519
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 769
- gi No. 571519
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 770
- gi No. 571519
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 771
- gi No. 571519
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 772
- gi No. 576773
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 773
- gi No. 576773
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 774
- gi No. 576773
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 775
- gi No. 576773
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 776
- gi No. 576773
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 777
- gi No. 576775
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 778
- gi No. 578545
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 779
- gi No. 578545
- % Identity 70.3
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 780
- gi No. 578545
- % Identity 70.3
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 781
- gi No. 578545
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 782
- gi No. 578545
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 783
- gi No. 578546
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 784
- gi No. 578546
- % Identity 70.3
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 785
- gi No. 578546
- % Identity 70.3
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 786
- gi No. 578546
- % Identity 73
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 787
- gi No. 578549
- % Identity 75.7
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 788
- gi No. 578549
- % Identity 70.3
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 789
- gi No. 578549
- % Identity 70.3
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 790
- gi No. 578551
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 791
- gi No. 578551
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 792
- gi No. 578551
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 793

- gi No. 578551
- % Identity 72.5
- Alignment Length 40
- Location of Alignment in SEQ ID NO 89: from 28 to 67
  
- Alignment No. 794
- gi No. 600539
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 795
- gi No. 602076
- % Identity 87.5
- Alignment Length 32
- Location of Alignment in SEQ ID NO 89: from 31 to 62
  
- Alignment No. 796
- gi No. 602076
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 797
- gi No. 602076
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 798
- gi No. 602076
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 799
- gi No. 602076
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 800
- gi No. 625174
- % Identity 95.7
- Alignment Length 23
- Location of Alignment in SEQ ID NO 89: from 45 to 67
  
- Alignment No. 801
- gi No. 625174
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 802
- gi No. 625174
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 803
- gi No. 625509

- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 804
- gi No. 625509
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 805
- gi No. 625509
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 806
- gi No. 625509
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 807
- gi No. 630455
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 808
- gi No. 630479
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 809
- gi No. 630479
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 810
- gi No. 630479
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 811
- gi No. 630479
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 812
- gi No. 630479
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 813
- gi No. 630479
- % Identity 83.8

- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 814
- gi No. 70636
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 815
- gi No. 70636
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 816
- gi No. 70636
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 817
- gi No. 70637
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 818
- gi No. 70639
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 819
- gi No. 70639
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 820
- gi No. 70639
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 821
- gi No. 70639
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 822
- gi No. 70640
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 823
- gi No. 70642
- % Identity 89.2
- Alignment Length 37

- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 824
- gi No. 70642
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 825
- gi No. 70642
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 826
- gi No. 70642
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 827
- gi No. 70642
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 828
- gi No. 70643
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 829
- gi No. 70644
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 830
- gi No. 70644
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 831
- gi No. 70644
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 832
- gi No. 70644
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 833
- gi No. 70644
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 834
- gi No. 70645
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 835
- gi No. 70645
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 836
- gi No. 70645
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 837
- gi No. 70645
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 838
- gi No. 70645
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 839
- gi No. 70646
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 840
- gi No. 70647
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 841
- gi No. 70647
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 842
- gi No. 70647
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 843
- gi No. 70648
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67



- Alignment No. 844
- gi No. 70653
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 845
- gi No. 70654
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 846
- gi No. 70657
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 847
- gi No. 70658
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 848
- gi No. 70659
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 849
- gi No. 70660
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 850
- gi No. 726391
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 851
- gi No. 726391
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 852
- gi No. 726391
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 853
- gi No. 726391
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 854

- gi No. 726391
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 855
- gi No. 726391
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 856
- gi No. 726391
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 857
- gi No. 726391
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 858
- gi No. 726391
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 859
- gi No. 726391
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 860
- gi No. 726391
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 861
- gi No. 82040
- % Identity 87.1
- Alignment Length 31
- Location of Alignment in SEQ ID NO 89: from 31 to 61
  
- Alignment No. 862
- gi No. 82040
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 863
- gi No. 82040
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 864
- gi No. 82040

- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 865
- gi No. 82284
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 866
- gi No. 82287
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 867
- gi No. 82426
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 868
- gi No. 82426
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 869
- gi No. 82512
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 870
- gi No. 82512
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 871
- gi No. 82733
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 872
- gi No. 82734
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 873
- gi No. 82734
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 874
- gi No. 82734
- % Identity 89.2

- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 875
- gi No. 829173
- % Identity 83.3
- Alignment Length 30
- Location of Alignment in SEQ ID NO 89: from 38 to 67
  
- Alignment No. 876
- gi No. 83594
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 877
- gi No. 83596
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 878
- gi No. 83596
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 879
- gi No. 83596
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 880
- gi No. 83596
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 881
- gi No. 83596
- % Identity 86.5
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 882
- gi No. 84151
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 883
- gi No. 84151
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 884
- gi No. 84151
- % Identity 81.1
- Alignment Length 37

- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 885
- gi No. 84152
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 886
- gi No. 84152
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 887
- gi No. 84152
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 888
- gi No. 84152
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 889
- gi No. 84152
- % Identity 78.4
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 890
- gi No. 84336
- % Identity 91.7
- Alignment Length 24
- Location of Alignment in SEQ ID NO 89: from 44 to 67
- Alignment No. 891
- gi No. 84337
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 892
- gi No. 84478
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 893
- gi No. 84478
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 894
- gi No. 84478
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 895
- gi No. 84478
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 896
- gi No. 84478
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 897
- gi No. 84478
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 898
- gi No. 84478
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 899
- gi No. 84478
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 900
- gi No. 84478
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 901
- gi No. 84478
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 902
- gi No. 84478
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 903
- gi No. 84834
- % Identity 72.7
- Alignment Length 11
- Location of Alignment in SEQ ID NO 89: from 31 to 41
  
- Alignment No. 904
- gi No. 84834
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

- Alignment No. 905
- gi No. 84834
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 906
- gi No. 85106
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 907
- gi No. 85106
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 908
- gi No. 85106
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 909
- gi No. 870794
- % Identity 78.1
- Alignment Length 32
- Location of Alignment in SEQ ID NO 89: from 35 to 66
  
- Alignment No. 910
- gi No. 870794
- % Identity 76.5
- Alignment Length 34
- Location of Alignment in SEQ ID NO 89: from 34 to 67
  
- Alignment No. 911
- gi No. 870794
- % Identity 88.6
- Alignment Length 35
- Location of Alignment in SEQ ID NO 89: from 33 to 67
  
- Alignment No. 912
- gi No. 870794
- % Identity 75
- Alignment Length 36
- Location of Alignment in SEQ ID NO 89: from 31 to 66
  
- Alignment No. 913
- gi No. 89311
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 914
- gi No. 89311
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 915

- gi No. 89311
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 916
- gi No. 899115
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 917
- gi No. 899608
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 918
- gi No. 899608
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 919
- gi No. 899608
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 920
- gi No. 899608
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 921
- gi No. 899608
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 922
- gi No. 902525
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 923
- gi No. 902584
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 924
- gi No. 902584
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 925
- gi No. 902584



- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 926
- gi No. 902584
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 927
- gi No. 902584
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 928
- gi No. 902584
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 929
- gi No. 902584
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 930
- gi No. 902586
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 931
- gi No. 902586
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 932
- gi No. 902586
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 933
- gi No. 902586
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 934
- gi No. 902586
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 935
- gi No. 91870
- % Identity 83.8

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- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 936
- gi No. 91871
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 937
- gi No. 9295
- % Identity 77.1
- Alignment Length 35
- Location of Alignment in SEQ ID NO 89: from 33 to 67
  
- Alignment No. 938
- gi No. 940395
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 939
- gi No. 940395
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 940
- gi No. 940395
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 941
- gi No. 940395
- % Identity 81.1
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 942
- gi No. 940395
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 943
- gi No. 940395
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 944
- gi No. 940395
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
  
- Alignment No. 945
- gi No. 940395
- % Identity 83.8
- Alignment Length 37

- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 946
- gi No. 967985
- % Identity 83.8
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 947
- gi No. 99771
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 948
- gi No. 99772
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67
- Alignment No. 949
- gi No. 99975
- % Identity 89.2
- Alignment Length 37
- Location of Alignment in SEQ ID NO 89: from 31 to 67

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 90
- Ceres seq\_id 1497965
- Location of start within SEQ ID NO 88: at 306 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 950
- Ubiquitin family
- Location within SEQ ID NO 90: from 1 to 76 aa.

(D) Related Amino Acid Sequences

- Alignment No. 951
- gi No. 100490
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 952
- gi No. 100490
- % Identity 99.1
- Alignment Length 108
- Location of Alignment in SEQ ID NO 90: from 10 to 117
- Alignment No. 953
- gi No. 100490
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 954
- gi No. 100490
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 955
- gi No. 100524
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 956
- gi No. 100524
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 957
- gi No. 100524
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 958
- gi No. 100524
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 959
- gi No. 100524
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 960
- gi No. 100524
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 961
- gi No. 100525
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 962
- gi No. 100525
- % Identity 98.5
- Alignment Length 133
- Location of Alignment in SEQ ID NO 90: from 1 to 106
  
- Alignment No. 963
- gi No. 100525
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 964
- gi No. 100525
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 965
- gi No. 100598
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 966
- gi No. 100598
- % Identity 98.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 967
- gi No. 100599
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 968
- gi No. 100599
- % Identity 98.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 969
- gi No. 100812
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 970
- gi No. 100812
- % Identity 98.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 971
- gi No. 100934
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 972
- gi No. 100934
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 973
- gi No. 100934
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 974
- gi No. 100934
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 975

- gi No. 100934
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 976
- gi No. 100934
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 977
- gi No. 100934
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 978
- gi No. 100981
- % Identity 100
- Alignment Length 40
- Location of Alignment in SEQ ID NO 90: from 37 to 76
  
- Alignment No. 979
- gi No. 102062
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 980
- gi No. 102062
- % Identity 90.9
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 981
- gi No. 102278
- % Identity 93.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 982
- gi No. 102278
- % Identity 93.2
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 983
- gi No. 102278
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 984
- gi No. 102278
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 985
- gi No. 102278

- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 986
- gi No. 102278
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 987
- gi No. 102278
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 988
- gi No. 102279
- % Identity 93.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 989
- gi No. 102279
- % Identity 93.2
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 990
- gi No. 102279
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 991
- gi No. 102280
- % Identity 92.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 992
- gi No. 102280
- % Identity 92.3
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 993
- gi No. 102280
- % Identity 92.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 994
- gi No. 102280
- % Identity 91.7
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 995
- gi No. 102280
- % Identity 92.4

- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 996
- gi No. 102281
- % Identity 93.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 997
- gi No. 102281
- % Identity 93.2
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 998
- gi No. 102281
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 999
- gi No. 102281
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1000
- gi No. 102281
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1001
- gi No. 102389
- % Identity 71.8
- Alignment Length 39
- Location of Alignment in SEQ ID NO 90: from 1 to 11
  
- Alignment No. 1002
- gi No. 102389
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1003
- gi No. 102389
- % Identity 84.1
- Alignment Length 88
- Location of Alignment in SEQ ID NO 90: from 1 to 87
  
- Alignment No. 1004
- gi No. 103436
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1005
- gi No. 103436
- % Identity 93.5
- Alignment Length 77



- Location of Alignment in SEQ ID NO 90: from 1 to 77
- Alignment No. 1006
- gi No. 1044940
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1007
- gi No. 1044940
- % Identity 97.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1008
- gi No. 104829
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1009
- gi No. 104829
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1010
- gi No. 104829
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1011
- gi No. 1050930
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1012
- gi No. 1050930
- % Identity 90.2
- Alignment Length 51
- Location of Alignment in SEQ ID NO 90: from 1 to 24
- Alignment No. 1013
- gi No. 1050930
- % Identity 94
- Alignment Length 100
- Location of Alignment in SEQ ID NO 90: from 1 to 100
- Alignment No. 1014
- gi No. 10673
- % Identity 74.4
- Alignment Length 39
- Location of Alignment in SEQ ID NO 90: from 1 to 11
- Alignment No. 1015
- gi No. 10673
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117

- Alignment No. 1016
- gi No. 10673
- % Identity 86.4
- Alignment Length 88
- Location of Alignment in SEQ ID NO 90: from 1 to 87
  
- Alignment No. 1017
- gi No. 1070590
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1018
- gi No. 1070590
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1019
- gi No. 1070590
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1020
- gi No. 1070591
- % Identity 93.3
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1021
- gi No. 1070591
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1022
- gi No. 1070591
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1023
- gi No. 1070591
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1024
- gi No. 1070591
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1025
- gi No. 1070591
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1026
- gi No. 1070591
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1027
- gi No. 1070591
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1028
- gi No. 1070591
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1029
- gi No. 1076678
- % Identity 70.1
- Alignment Length 67
- Location of Alignment in SEQ ID NO 90: from 54 to 117
  
- Alignment No. 1030
- gi No. 1076678
- % Identity 80.2
- Alignment Length 101
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1031
- gi No. 1076708
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1032
- gi No. 1076708
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1033
- gi No. 1076708
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1034
- gi No. 1076708
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1035
- gi No. 1078777
- % Identity 85.4
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1036

- gi No. 1078777
- % Identity 86.8
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1037
- gi No. 1078813
- % Identity 95.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1038
- gi No. 1078813
- % Identity 94
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1039
- gi No. 1078813
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1040
- gi No. 1083758
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1041
- gi No. 1083758
- % Identity 88.1
- Alignment Length 135
- Location of Alignment in SEQ ID NO 90: from 1 to 108
  
- Alignment No. 1042
- gi No. 1083758
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1043
- gi No. 1083758
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1044
- gi No. 1083758
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1045
- gi No. 1083758
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1046
- gi No. 1083758

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- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1047
- gi No. 1083758
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1048
- gi No. 1083758
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1049
- gi No. 1083758
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1050
- gi No. 1101011
- % Identity 83.5
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76

- Alignment No. 1051
- gi No. 1101011
- % Identity 86.5
- Alignment Length 126
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1052
- gi No. 1101011
- % Identity 85.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1053
- gi No. 1101011
- % Identity 85.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1054
- gi No. 1101011
- % Identity 85.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1055
- gi No. 1101011
- % Identity 84.7
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1056
- gi No. 1101011
- % Identity 85.4

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- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1057
- gi No. 1101011
- % Identity 85.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1058
- gi No. 1101011
- % Identity 85.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1059
- gi No. 1101011
- % Identity 85.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1060
- gi No. 1101013
- % Identity 82.9
- Alignment Length 35
- Location of Alignment in SEQ ID NO 90: from 83 to 117
  
- Alignment No. 1061
- gi No. 1101013
- % Identity 82.5
- Alignment Length 40
- Location of Alignment in SEQ ID NO 90: from 7 to 46
  
- Alignment No. 1062
- gi No. 1101015
- % Identity 82.9
- Alignment Length 35
- Location of Alignment in SEQ ID NO 90: from 83 to 117
  
- Alignment No. 1063
- gi No. 1101015
- % Identity 82.5
- Alignment Length 40
- Location of Alignment in SEQ ID NO 90: from 7 to 46
  
- Alignment No. 1064
- gi No. 1101019
- % Identity 77.1
- Alignment Length 35
- Location of Alignment in SEQ ID NO 90: from 83 to 117
  
- Alignment No. 1065
- gi No. 1101019
- % Identity 77.5
- Alignment Length 40
- Location of Alignment in SEQ ID NO 90: from 7 to 46
  
- Alignment No. 1066
- gi No. 1101021
- % Identity 84.9
- Alignment Length 73

- Location of Alignment in SEQ ID NO 90: from 1 to 46
- Alignment No. 1067
- gi No. 1101021
- % Identity 84.7
- Alignment Length 111
- Location of Alignment in SEQ ID NO 90: from 7 to 117
- Alignment No. 1068
- gi No. 1101023
- % Identity 89.5
- Alignment Length 38
- Location of Alignment in SEQ ID NO 90: from 1 to 11
- Alignment No. 1069
- gi No. 1101023
- % Identity 92
- Alignment Length 50
- Location of Alignment in SEQ ID NO 90: from 38 to 87
- Alignment No. 1070
- gi No. 1107481
- % Identity 95.7
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1071
- gi No. 1107481
- % Identity 96.7
- Alignment Length 123
- Location of Alignment in SEQ ID NO 90: from 1 to 96
- Alignment No. 1072
- gi No. 1143188
- % Identity 95.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1073
- gi No. 1143188
- % Identity 95.7
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1074
- gi No. 1143188
- % Identity 95.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1075
- gi No. 1167510
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1076
- gi No. 1167510
- % Identity 83.3
- Alignment Length 54
- Location of Alignment in SEQ ID NO 90: from 1 to 27

- Alignment No. 1077
- gi No. 1167510
- % Identity 90.3
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 103
  
- Alignment No. 1078
- gi No. 1174858
- % Identity 76.3
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1079
- gi No. 1174859
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1080
- gi No. 1174859
- % Identity 94.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1081
- gi No. 1174860
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1082
- gi No. 1174860
- % Identity 94.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1083
- gi No. 1174861
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1084
- gi No. 1174861
- % Identity 93.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1085
- gi No. 1184755
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1086
- gi No. 1184755
- % Identity 94.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76



- Alignment No. 1087
- gi No. 1197093
- % Identity 93.3
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1088
- gi No. 1197093
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1089
- gi No. 1197093
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1090
- gi No. 1197093
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1091
- gi No. 1304128
- % Identity 94.3
- Alignment Length 106
- Location of Alignment in SEQ ID NO 90: from 1 to 79
  
- Alignment No. 1092
- gi No. 1304128
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1093
- gi No. 1304128
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1094
- gi No. 1304128
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1095
- gi No. 1304128
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1096
- gi No. 1304128
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1097

- gi No. 1304128
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1098
- gi No. 1304128
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1099
- gi No. 1304357
- % Identity 80.5
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1100
- gi No. 1304357
- % Identity 82.9
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1101
- gi No. 1321735
- % Identity 93.3
- Alignment Length 90
- Location of Alignment in SEQ ID NO 90: from 1 to 63
  
- Alignment No. 1102
- gi No. 1321735
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1103
- gi No. 1326021
- % Identity 97
- Alignment Length 33
- Location of Alignment in SEQ ID NO 90: from 44 to 76
  
- Alignment No. 1104
- gi No. 1326022
- % Identity 97.5
- Alignment Length 79
- Location of Alignment in SEQ ID NO 90: from 39 to 117
  
- Alignment No. 1105
- gi No. 1326022
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1106
- gi No. 1326022
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1107
- gi No. 1332579

- % Identity 96.2
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1108
- gi No. 1332579
- % Identity 97.4
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1109
- gi No. 1332579
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1110
- gi No. 1332579
- % Identity 97.9
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1111
- gi No. 1332579
- % Identity 97.2
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1112
- gi No. 1332579
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1113
- gi No. 1332579
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1114
- gi No. 1332579
- % Identity 97.9
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1115
- gi No. 1332579
- % Identity 97.9
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1116
- gi No. 1332579
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1117
- gi No. 1351348
- % Identity 95.1

- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1118
- gi No. 1351348
- % Identity 96.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1119
- gi No. 1351349
- % Identity 90.2
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1120
- gi No. 1351349
- % Identity 89.5
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1121
- gi No. 1353755
- % Identity 94.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 42 to 117
  
- Alignment No. 1122
- gi No. 1353755
- % Identity 93.6
- Alignment Length 110
- Location of Alignment in SEQ ID NO 90: from 1 to 83
  
- Alignment No. 1123
- gi No. 1353757
- % Identity 91.8
- Alignment Length 73
- Location of Alignment in SEQ ID NO 90: from 1 to 46
  
- Alignment No. 1124
- gi No. 1353757
- % Identity 93.1
- Alignment Length 116
- Location of Alignment in SEQ ID NO 90: from 2 to 117
  
- Alignment No. 1125
- gi No. 1362008
- % Identity 96.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1126
- gi No. 1362008
- % Identity 82.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1127
- gi No. 1362008
- % Identity 90.9
- Alignment Length 143

- Location of Alignment in SEQ ID NO 90: from 1 to 116
- Alignment No. 1128
- gi No. 1362008
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1129
- gi No. 1362008
- % Identity 91
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1130
- gi No. 1362009
- % Identity 83.8
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1131
- gi No. 1362010
- % Identity 91.3
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1132
- gi No. 1362010
- % Identity 86.3
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1133
- gi No. 1362010
- % Identity 91.7
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1134
- gi No. 1362010
- % Identity 92.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1135
- gi No. 1362012
- % Identity 74.7
- Alignment Length 99
- Location of Alignment in SEQ ID NO 90: from 1 to 74
- Alignment No. 1136
- gi No. 1362012
- % Identity 86.3
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1137
- gi No. 1362012
- % Identity 75.7
- Alignment Length 146
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1138
- gi No. 1362012
- % Identity 85.2
- Alignment Length 149
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1139
- gi No. 1362012
- % Identity 70.2
- Alignment Length 151
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1140
- gi No. 1362012
- % Identity 72.8
- Alignment Length 151
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1141
- gi No. 1362012
- % Identity 70.8
- Alignment Length 154
- Location of Alignment in SEQ ID NO 90: from 1 to 115
  
- Alignment No. 1142
- gi No. 136665
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1143
- gi No. 136665
- % Identity 94.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1144
- gi No. 136666
- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1145
- gi No. 136666
- % Identity 97.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1146
- gi No. 136667
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1147
- gi No. 136667
- % Identity 97.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76

- Alignment No. 1148
- gi No. 136668
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1149
- gi No. 136668
- % Identity 93.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1150
- gi No. 136669
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1151
- gi No. 136669
- % Identity 94.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1152
- gi No. 136670
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1153
- gi No. 136670
- % Identity 94.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1154
- gi No. 136671
- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1155
- gi No. 136671
- % Identity 96.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1156
- gi No. 136672
- % Identity 90.2
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1157
- gi No. 136672
- % Identity 92.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1158

- gi No. 136673
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1159
- gi No. 136673
- % Identity 98.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1160
- gi No. 136674
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1161
- gi No. 136674
- % Identity 93.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1162
- gi No. 136675
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1163
- gi No. 136675
- % Identity 93.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1164
- gi No. 136676
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1165
- gi No. 136676
- % Identity 93.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1166
- gi No. 136677
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1167
- gi No. 136677
- % Identity 96.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1168
- gi No. 136678



- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1169
- gi No. 136678
- % Identity 96.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1170
- gi No. 1421797
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1171
- gi No. 1421797
- % Identity 94.9
- Alignment Length 79
- Location of Alignment in SEQ ID NO 90: from 1 to 79
  
- Alignment No. 1172
- gi No. 1480012
- % Identity 96
- Alignment Length 25
- Location of Alignment in SEQ ID NO 90: from 93 to 117
  
- Alignment No. 1173
- gi No. 1480012
- % Identity 95.1
- Alignment Length 61
- Location of Alignment in SEQ ID NO 90: from 17 to 77
  
- Alignment No. 1174
- gi No. 156480
- % Identity 94.6
- Alignment Length 37
- Location of Alignment in SEQ ID NO 90: from 77 to 113
  
- Alignment No. 1175
- gi No. 156480
- % Identity 91.9
- Alignment Length 37
- Location of Alignment in SEQ ID NO 90: from 1 to 37
  
- Alignment No. 1176
- gi No. 158759
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1177
- gi No. 158759
- % Identity 93.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1178
- gi No. 158763
- % Identity 92.7

- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1179
- gi No. 158763
- % Identity 93.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1180
- gi No. 158765
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1181
- gi No. 158765
- % Identity 90.8
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1182
- gi No. 158767
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1183
- gi No. 158767
- % Identity 92.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1184
- gi No. 158769
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1185
- gi No. 158769
- % Identity 92.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1186
- gi No. 158771
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1187
- gi No. 158771
- % Identity 93.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1188
- gi No. 161281
- % Identity 95.1
- Alignment Length 41

- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1189
- gi No. 161281
- % Identity 92.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1190
- gi No. 163575
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1191
- gi No. 163575
- % Identity 95.3
- Alignment Length 128
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1192
- gi No. 166336
- % Identity 94.2
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
- Alignment No. 1193
- gi No. 166336
- % Identity 94
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1194
- gi No. 166336
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1195
- gi No. 166336
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1196
- gi No. 166336
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1197
- gi No. 166336
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1198
- gi No. 1666175
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117

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- Alignment No. 1199
- gi No. 1666175
- % Identity 98.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1200
- gi No. 1675359
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1201
- gi No. 1675359
- % Identity 90.2
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 1 to 41
  
- Alignment No. 1202
- gi No. 167935
- % Identity 92.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1203
- gi No. 167935
- % Identity 92.3
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1204
- gi No. 167935
- % Identity 92.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1205
- gi No. 167935
- % Identity 92.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1206
- gi No. 167935
- % Identity 91.7
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1207
- gi No. 167941
- % Identity 90
- Alignment Length 40
- Location of Alignment in SEQ ID NO 90: from 78 to 117
  
- Alignment No. 1208
- gi No. 167941
- % Identity 92
- Alignment Length 75
- Location of Alignment in SEQ ID NO 90: from 2 to 76

- Alignment No. 1209
- gi No. 167945
- % Identity 92.3
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1210
- gi No. 167945
- % Identity 92.3
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1211
- gi No. 167945
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1212
- gi No. 167947
- % Identity 93.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1213
- gi No. 167947
- % Identity 93.2
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1214
- gi No. 167947
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1215
- gi No. 167947
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1216
- gi No. 167947
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1217
- gi No. 167947
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1218
- gi No. 167947
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1219

- gi No. 167949
- % Identity 92.3
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1220
- gi No. 167949
- % Identity 93.2
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1221
- gi No. 167949
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1222
- gi No. 167949
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1223
- gi No. 167949
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1224
- gi No. 1684855
- % Identity 76.5
- Alignment Length 102
- Location of Alignment in SEQ ID NO 90: from 16 to 117
  
- Alignment No. 1225
- gi No. 1684855
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1226
- gi No. 1684855
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1227
- gi No. 1684855
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1228
- gi No. 1684855
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1229
- gi No. 1684857

- % Identity 100
- Alignment Length 27
- Location of Alignment in SEQ ID NO 90: from 91 to 117
  
- Alignment No. 1230
- gi No. 1684857
- % Identity 100
- Alignment Length 102
- Location of Alignment in SEQ ID NO 90: from 16 to 117
  
- Alignment No. 1231
- gi No. 1684857
- % Identity 97.1
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1232
- gi No. 1684857
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1233
- gi No. 170352
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1234
- gi No. 170352
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1235
- gi No. 170352
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1236
- gi No. 170352
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1237
- gi No. 170352
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1238
- gi No. 170352
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1239
- gi No. 170354
- % Identity 98.1

- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1240
- gi No. 170354
- % Identity 99.1
- Alignment Length 113
- Location of Alignment in SEQ ID NO 90: from 5 to 117
  
- Alignment No. 1241
- gi No. 170354
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1242
- gi No. 170354
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1243
- gi No. 170354
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1244
- gi No. 1762374
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1245
- gi No. 1762374
- % Identity 94.4
- Alignment Length 71
- Location of Alignment in SEQ ID NO 90: from 1 to 71
  
- Alignment No. 1246
- gi No. 1762935
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1247
- gi No. 1762935
- % Identity 97.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1248
- gi No. 1763015
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1249
- gi No. 1763015
- % Identity 94.7
- Alignment Length 76



- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1250
- gi No. 1771780
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1251
- gi No. 1771780
- % Identity 98.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1252
- gi No. 1778712
- % Identity 93.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1253
- gi No. 1778712
- % Identity 93.2
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1254
- gi No. 1778712
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1255
- gi No. 1778712
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1256
- gi No. 1778712
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1257
- gi No. 1800281
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1258
- gi No. 1800281
- % Identity 98.3
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1259
- gi No. 1800281
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1260
- gi No. 1800281
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1261
- gi No. 1800281
- % Identity 97.9
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1262
- gi No. 1805696
- % Identity 93.5
- Alignment Length 92
- Location of Alignment in SEQ ID NO 90: from 1 to 65
  
- Alignment No. 1263
- gi No. 1805696
- % Identity 94.5
- Alignment Length 110
- Location of Alignment in SEQ ID NO 90: from 8 to 117
  
- Alignment No. 1264
- gi No. 1839584
- % Identity 100
- Alignment Length 38
- Location of Alignment in SEQ ID NO 90: from 77 to 114
  
- Alignment No. 1265
- gi No. 1839584
- % Identity 97.4
- Alignment Length 38
- Location of Alignment in SEQ ID NO 90: from 1 to 38
  
- Alignment No. 1266
- gi No. 1841849
- % Identity 95.3
- Alignment Length 43
- Location of Alignment in SEQ ID NO 90: from 1 to 16
  
- Alignment No. 1267
- gi No. 1841849
- % Identity 100
- Alignment Length 57
- Location of Alignment in SEQ ID NO 90: from 36 to 92
  
- Alignment No. 1268
- gi No. 208558
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1269
- gi No. 208558
- % Identity 93.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76

- Alignment No. 1270
- gi No. 208560
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1271
- gi No. 208560
- % Identity 93.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1272
- gi No. 208562
- % Identity 90.2
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1273
- gi No. 208562
- % Identity 92.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1274
- gi No. 208564
- % Identity 90.2
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1275
- gi No. 208564
- % Identity 90.8
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1276
- gi No. 208566
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1277
- gi No. 208566
- % Identity 92.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1278
- gi No. 208568
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1279
- gi No. 208568
- % Identity 93.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1280

- gi No. 208891
- % Identity 95.7
- Alignment Length 46
- Location of Alignment in SEQ ID NO 90: from 72 to 117
  
- Alignment No. 1281
- gi No. 208891
- % Identity 87.8
- Alignment Length 49
- Location of Alignment in SEQ ID NO 90: from 1 to 22
  
- Alignment No. 1282
- gi No. 208891
- % Identity 93.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 98
  
- Alignment No. 1283
- gi No. 209603
- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1284
- gi No. 209603
- % Identity 96.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1285
- gi No. 2118958
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1286
- gi No. 2118958
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1287
- gi No. 2118958
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1288
- gi No. 2118958
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1289
- gi No. 2118958
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1290
- gi No. 2118959

- % Identity 80.3
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1291
- gi No. 2118959
- % Identity 85.6
- Alignment Length 139
- Location of Alignment in SEQ ID NO 90: from 1 to 112
  
- Alignment No. 1292
- gi No. 2118959
- % Identity 82.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1293
- gi No. 2118960
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1294
- gi No. 2118960
- % Identity 95.5
- Alignment Length 132
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1295
- gi No. 2118961
- % Identity 93.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1296
- gi No. 2118961
- % Identity 94.2
- Alignment Length 121
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1297
- gi No. 2118962
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1298
- gi No. 2118962
- % Identity 95
- Alignment Length 121
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1299
- gi No. 2118963
- % Identity 91.5
- Alignment Length 82
- Location of Alignment in SEQ ID NO 90: from 36 to 117
  
- Alignment No. 1300
- gi No. 2118963
- % Identity 88.2

- Alignment Length 102
- Location of Alignment in SEQ ID NO 90: from 1 to 75
  
- Alignment No. 1301
- gi No. 2118964
- % Identity 96.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 90: from 37 to 117
  
- Alignment No. 1302
- gi No. 2118964
- % Identity 93.3
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1303
- gi No. 2118964
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1304
- gi No. 2118964
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1305
- gi No. 2118965
- % Identity 93.3
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1306
- gi No. 2118965
- % Identity 95.3
- Alignment Length 128
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1307
- gi No. 2118965
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1308
- gi No. 2129452
- % Identity 92.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1309
- gi No. 2129452
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1310
- gi No. 2129452
- % Identity 94.4
- Alignment Length 144

- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1311
- gi No. 2129452
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1312
- gi No. 2129452
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1313
- gi No. 2129452
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1314
- gi No. 2133278
- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1315
- gi No. 2133278
- % Identity 93.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1316
- gi No. 2133549
- % Identity 95.2
- Alignment Length 21
- Location of Alignment in SEQ ID NO 90: from 97 to 117
- Alignment No. 1317
- gi No. 2133549
- % Identity 96.4
- Alignment Length 56
- Location of Alignment in SEQ ID NO 90: from 21 to 76
- Alignment No. 1318
- gi No. 2133549
- % Identity 93.3
- Alignment Length 75
- Location of Alignment in SEQ ID NO 90: from 1 to 48
- Alignment No. 1319
- gi No. 2133549
- % Identity 76
- Alignment Length 100
- Location of Alignment in SEQ ID NO 90: from 44 to 126
- Alignment No. 1320
- gi No. 2144011
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117

- Alignment No. 1321
- gi No. 2144011
- % Identity 94.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1322
- gi No. 2144275
- % Identity 90.2
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1323
- gi No. 2144275
- % Identity 90.9
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1324
- gi No. 2144734
- % Identity 88.7
- Alignment Length 115
- Location of Alignment in SEQ ID NO 90: from 1 to 87
  
- Alignment No. 1325
- gi No. 2144734
- % Identity 95.7
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1326
- gi No. 2144734
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1327
- gi No. 2144734
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1328
- gi No. 2149467
- % Identity 86
- Alignment Length 50
- Location of Alignment in SEQ ID NO 90: from 68 to 117
  
- Alignment No. 1329
- gi No. 2149467
- % Identity 81.3
- Alignment Length 98
- Location of Alignment in SEQ ID NO 90: from 1 to 85
  
- Alignment No. 1330
- gi No. 2209091
- % Identity 92.3
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77



- Alignment No. 1331
- gi No. 2209091
- % Identity 92.3
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1332
- gi No. 223061
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1333
- gi No. 223061
- % Identity 93.3
- Alignment Length 75
- Location of Alignment in SEQ ID NO 90: from 1 to 75
  
- Alignment No. 1334
- gi No. 224321
- % Identity 97.5
- Alignment Length 79
- Location of Alignment in SEQ ID NO 90: from 39 to 117
  
- Alignment No. 1335
- gi No. 224321
- % Identity 95.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1336
- gi No. 224321
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1337
- gi No. 225317
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1338
- gi No. 225317
- % Identity 92.9
- Alignment Length 70
- Location of Alignment in SEQ ID NO 90: from 1 to 70
  
- Alignment No. 1339
- gi No. 225319
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1340
- gi No. 225319
- % Identity 92.9
- Alignment Length 70
- Location of Alignment in SEQ ID NO 90: from 1 to 70
  
- Alignment No. 1341

- gi No. 225320
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1342
- gi No. 225320
- % Identity 90
- Alignment Length 70
- Location of Alignment in SEQ ID NO 90: from 1 to 70
  
- Alignment No. 1343
- gi No. 2281952
- % Identity 91.2
- Alignment Length 34
- Location of Alignment in SEQ ID NO 90: from 84 to 117
  
- Alignment No. 1344
- gi No. 2281952
- % Identity 93.5
- Alignment Length 62
- Location of Alignment in SEQ ID NO 90: from 8 to 69
  
- Alignment No. 1345
- gi No. 2281954
- % Identity 91.2
- Alignment Length 34
- Location of Alignment in SEQ ID NO 90: from 84 to 117
  
- Alignment No. 1346
- gi No. 2281954
- % Identity 91.9
- Alignment Length 62
- Location of Alignment in SEQ ID NO 90: from 8 to 69
  
- Alignment No. 1347
- gi No. 2281955
- % Identity 88.2
- Alignment Length 34
- Location of Alignment in SEQ ID NO 90: from 84 to 117
  
- Alignment No. 1348
- gi No. 2281955
- % Identity 86.7
- Alignment Length 45
- Location of Alignment in SEQ ID NO 90: from 8 to 52
  
- Alignment No. 1349
- gi No. 2281959
- % Identity 88.6
- Alignment Length 35
- Location of Alignment in SEQ ID NO 90: from 83 to 117
  
- Alignment No. 1350
- gi No. 2281959
- % Identity 89.2
- Alignment Length 65
- Location of Alignment in SEQ ID NO 90: from 7 to 71
  
- Alignment No. 1351
- gi No. 2330875

- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1352
- gi No. 2330875
- % Identity 96.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1353
- gi No. 2350864
- % Identity 83.3
- Alignment Length 36
- Location of Alignment in SEQ ID NO 90: from 82 to 117
  
- Alignment No. 1354
- gi No. 2350864
- % Identity 74.1
- Alignment Length 58
- Location of Alignment in SEQ ID NO 90: from 6 to 63
  
- Alignment No. 1355
- gi No. 2408009
- % Identity 71.8
- Alignment Length 39
- Location of Alignment in SEQ ID NO 90: from 1 to 11
  
- Alignment No. 1356
- gi No. 2408009
- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1357
- gi No. 2408009
- % Identity 86.4
- Alignment Length 88
- Location of Alignment in SEQ ID NO 90: from 1 to 87
  
- Alignment No. 1358
- gi No. 2437825
- % Identity 95.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1359
- gi No. 2437825
- % Identity 96.6
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1360
- gi No. 2437825
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1361
- gi No. 2437825
- % Identity 95.8

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- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1362
- gi No. 247308
- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1363
- gi No. 247308
- % Identity 89.5
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1364
- gi No. 248865
- % Identity 95
- Alignment Length 20
- Location of Alignment in SEQ ID NO 90: from 77 to 96
- Alignment No. 1365
- gi No. 248865
- % Identity 90
- Alignment Length 20
- Location of Alignment in SEQ ID NO 90: from 1 to 20
- Alignment No. 1366
- gi No. 2558539
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1367
- gi No. 2558539
- % Identity 93.5
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 1 to 77
- Alignment No. 1368
- gi No. 2627129
- % Identity 93.3
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
- Alignment No. 1369
- gi No. 2627129
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1370
- gi No. 2627129
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1371
- gi No. 2627129
- % Identity 94.4
- Alignment Length 144

- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1372
- gi No. 2627129
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1373
- gi No. 2627129
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1374
- gi No. 2627129
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1375
- gi No. 2627129
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1376
- gi No. 2627131
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1377
- gi No. 2627131
- % Identity 89.6
- Alignment Length 135
- Location of Alignment in SEQ ID NO 90: from 1 to 108
- Alignment No. 1378
- gi No. 2627131
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1379
- gi No. 2627131
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1380
- gi No. 2627131
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1381
- gi No. 2627131
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1382
- gi No. 2627131
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1383
- gi No. 2627131
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1384
- gi No. 2627131
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1385
- gi No. 2627131
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1386
- gi No. 2627131
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1387
- gi No. 2627133
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1388
- gi No. 2627133
- % Identity 89.6
- Alignment Length 135
- Location of Alignment in SEQ ID NO 90: from 1 to 108
  
- Alignment No. 1389
- gi No. 2627133
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1390
- gi No. 2627133
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1391
- gi No. 2627133
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1392
- gi No. 2627133
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1393
- gi No. 2627133
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1394
- gi No. 2627133
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1395
- gi No. 2627133
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1396
- gi No. 2627133
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1397
- gi No. 2627133
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1398
- gi No. 2627133
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1399
- gi No. 2627133
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1400
- gi No. 2641213
- % Identity 95.6
- Alignment Length 90
- Location of Alignment in SEQ ID NO 90: from 1 to 63
  
- Alignment No. 1401
- gi No. 2641213
- % Identity 98.3
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1402

- gi No. 2654141
- % Identity 90.3
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1403
- gi No. 2654141
- % Identity 90.6
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1404
- gi No. 2654141
- % Identity 89.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1405
- gi No. 2654141
- % Identity 89.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1406
- gi No. 2654141
- % Identity 87.5
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1407
- gi No. 2707837
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1408
- gi No. 2707837
- % Identity 94
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1409
- gi No. 2707837
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1410
- gi No. 2707837
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1411
- gi No. 2739333
- % Identity 95.2
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1412
- gi No. 2739333



- % Identity 98.3
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1413
- gi No. 2739333
- % Identity 97.2
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1414
- gi No. 2739333
- % Identity 97.2
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1415
- gi No. 2760345
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1416
- gi No. 2760345
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1417
- gi No. 2760345
- % Identity 97.9
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1418
- gi No. 2760345
- % Identity 97.9
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1419
- gi No. 2760347
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1420
- gi No. 2760347
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1421
- gi No. 2760347
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1422
- gi No. 2760347
- % Identity 98.6

- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1423
- gi No. 2760347
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1424
- gi No. 2760347
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1425
- gi No. 2760349
- % Identity 97.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1426
- gi No. 2760349
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1427
- gi No. 2760349
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1428
- gi No. 2760349
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1429
- gi No. 2760349
- % Identity 97.9
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1430
- gi No. 279635
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1431
- gi No. 279635
- % Identity 94.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1432
- gi No. 279636
- % Identity 100
- Alignment Length 41

- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1433
- gi No. 279636
- % Identity 98.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1434
- gi No. 280386
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1435
- gi No. 280386
- % Identity 97.4
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 1 to 77
- Alignment No. 1436
- gi No. 281276
- % Identity 90
- Alignment Length 20
- Location of Alignment in SEQ ID NO 90: from 77 to 96
- Alignment No. 1437
- gi No. 281276
- % Identity 85
- Alignment Length 20
- Location of Alignment in SEQ ID NO 90: from 1 to 20
- Alignment No. 1438
- gi No. 283496
- % Identity 93.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1439
- gi No. 283496
- % Identity 93.2
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1440
- gi No. 283496
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1441
- gi No. 283496
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1442
- gi No. 283496
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1443
- gi No. 2894304
- % Identity 95.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1444
- gi No. 2894304
- % Identity 96.6
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1445
- gi No. 2894304
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1446
- gi No. 2894304
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1447
- gi No. 2894306
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1448
- gi No. 2894306
- % Identity 98.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1449
- gi No. 2894308
- % Identity 96.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1450
- gi No. 2894308
- % Identity 95.7
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1451
- gi No. 2894308
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1452
- gi No. 2894308
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1453
- gi No. 2894308
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1454
- gi No. 2995277
- % Identity 96.7
- Alignment Length 30
- Location of Alignment in SEQ ID NO 90: from 48 to 77
  
- Alignment No. 1455
- gi No. 2995949
- % Identity 100
- Alignment Length 75
- Location of Alignment in SEQ ID NO 90: from 43 to 117
  
- Alignment No. 1456
- gi No. 2995949
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1457
- gi No. 3047314
- % Identity 71.8
- Alignment Length 39
- Location of Alignment in SEQ ID NO 90: from 1 to 11
  
- Alignment No. 1458
- gi No. 3047314
- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1459
- gi No. 3047314
- % Identity 86.4
- Alignment Length 88
- Location of Alignment in SEQ ID NO 90: from 1 to 87
  
- Alignment No. 1460
- gi No. 3047316
- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1461
- gi No. 3047316
- % Identity 96.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1462
- gi No. 3047318
- % Identity 95.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1463

- gi No. 3047318
- % Identity 96.6
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1464
- gi No. 3047318
- % Identity 95.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1465
- gi No. 3047318
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1466
- gi No. 3047318
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1467
- gi No. 3091264
- % Identity 96.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1468
- gi No. 3091264
- % Identity 98.3
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1469
- gi No. 3091264
- % Identity 97.2
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1470
- gi No. 3091264
- % Identity 97.2
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1471
- gi No. 3126967
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1472
- gi No. 3126967
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1473
- gi No. 3126967

- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1474
- gi No. 3126967
- % Identity 97.2
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1475
- gi No. 3126967
- % Identity 97.2
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1476
- gi No. 3126967
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1477
- gi No. 3152950
- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1478
- gi No. 3152950
- % Identity 96.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1479
- gi No. 3158372
- % Identity 100
- Alignment Length 69
- Location of Alignment in SEQ ID NO 90: from 49 to 117
  
- Alignment No. 1480
- gi No. 3158372
- % Identity 97.8
- Alignment Length 136
- Location of Alignment in SEQ ID NO 90: from 1 to 109
  
- Alignment No. 1481
- gi No. 320608
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1482
- gi No. 320608
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1483
- gi No. 320608
- % Identity 98.6

- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1484
- gi No. 320608
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1485
- gi No. 322750
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1486
- gi No. 322750
- % Identity 97.4
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 1 to 77
- Alignment No. 1487
- gi No. 323071
- % Identity 87.8
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1488
- gi No. 323071
- % Identity 84.2
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1489
- gi No. 323157
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1490
- gi No. 323157
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1491
- gi No. 323157
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1492
- gi No. 323157
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1493
- gi No. 323157
- % Identity 93.8
- Alignment Length 144



- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1494
- gi No. 323157
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1495
- gi No. 323208
- % Identity 88.4
- Alignment Length 112
- Location of Alignment in SEQ ID NO 90: from 1 to 85
- Alignment No. 1496
- gi No. 323208
- % Identity 77.3
- Alignment Length 120
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1497
- gi No. 323230
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1498
- gi No. 323230
- % Identity 83.5
- Alignment Length 85
- Location of Alignment in SEQ ID NO 90: from 1 to 85
- Alignment No. 1499
- gi No. 3265058
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1500
- gi No. 3265058
- % Identity 97.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1501
- gi No. 3319208
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1502
- gi No. 3319208
- % Identity 98.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1503
- gi No. 3335355
- % Identity 100
- Alignment Length 21
- Location of Alignment in SEQ ID NO 90: from 56 to 76

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- Alignment No. 1504
- gi No. 3335355
- % Identity 95
- Alignment Length 80
- Location of Alignment in SEQ ID NO 90: from 1 to 53
  
- Alignment No. 1505
- gi No. 3335355
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1506
- gi No. 3335355
- % Identity 97.2
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1507
- gi No. 3335355
- % Identity 96.5
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1508
- gi No. 340062
- % Identity 94.6
- Alignment Length 37
- Location of Alignment in SEQ ID NO 90: from 81 to 117
  
- Alignment No. 1509
- gi No. 340062
- % Identity 94.4
- Alignment Length 72
- Location of Alignment in SEQ ID NO 90: from 5 to 76
  
- Alignment No. 1510
- gi No. 3452083
- % Identity 94.7
- Alignment Length 19
- Location of Alignment in SEQ ID NO 90: from 99 to 117
  
- Alignment No. 1511
- gi No. 3452083
- % Identity 92.9
- Alignment Length 56
- Location of Alignment in SEQ ID NO 90: from 1 to 29
  
- Alignment No. 1512
- gi No. 3452083
- % Identity 96.4
- Alignment Length 83
- Location of Alignment in SEQ ID NO 90: from 23 to 105
  
- Alignment No. 1513
- gi No. 348148
- % Identity 95.9
- Alignment Length 74
- Location of Alignment in SEQ ID NO 90: from 44 to 117

- Alignment No. 1514
- gi No. 348148
- % Identity 93.3
- Alignment Length 75
- Location of Alignment in SEQ ID NO 90: from 1 to 48
  
- Alignment No. 1515
- gi No. 348149
- % Identity 95.2
- Alignment Length 21
- Location of Alignment in SEQ ID NO 90: from 97 to 117
  
- Alignment No. 1516
- gi No. 348149
- % Identity 96.4
- Alignment Length 56
- Location of Alignment in SEQ ID NO 90: from 21 to 76
  
- Alignment No. 1517
- gi No. 3603456
- % Identity 100
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 41 to 117
  
- Alignment No. 1518
- gi No. 3603456
- % Identity 97.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1519
- gi No. 3603456
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1520
- gi No. 3603456
- % Identity 97.9
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1521
- gi No. 3687425
- % Identity 95.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1522
- gi No. 3687425
- % Identity 96.6
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1523
- gi No. 3687425
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1524

- gi No. 3738185
- % Identity 94.2
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1525
- gi No. 3738185
- % Identity 96.6
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1526
- gi No. 3738185
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1527
- gi No. 3738185
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1528
- gi No. 3738185
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1529
- gi No. 3776536
- % Identity 94.2
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1530
- gi No. 3776536
- % Identity 96.6
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1531
- gi No. 3776536
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1532
- gi No. 3776536
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1533
- gi No. 3776536
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1534
- gi No. 3776536

- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1535
- gi No. 3776536
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1536
- gi No. 3776536
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1537
- gi No. 3789940
- % Identity 97.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1538
- gi No. 3789940
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1539
- gi No. 3789940
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1540
- gi No. 3789940
- % Identity 92.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1541
- gi No. 3789942
- % Identity 97.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1542
- gi No. 3789942
- % Identity 94.4
- Alignment Length 124
- Location of Alignment in SEQ ID NO 90: from 1 to 124
  
- Alignment No. 1543
- gi No. 3789942
- % Identity 97.9
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1544
- gi No. 3789942
- % Identity 96.5

- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1545
- gi No. 3789942
- % Identity 94
- Alignment Length 151
- Location of Alignment in SEQ ID NO 90: from 1 to 124
  
- Alignment No. 1546
- gi No. 3822277
- % Identity 70.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1547
- gi No. 3822277
- % Identity 77.6
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1548
- gi No. 385076
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1549
- gi No. 385076
- % Identity 92.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1550
- gi No. 3882081
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1551
- gi No. 3882081
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1552
- gi No. 3882081
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1553
- gi No. 3885463
- % Identity 85.4
- Alignment Length 82
- Location of Alignment in SEQ ID NO 90: from 4 to 85
  
- Alignment No. 1554
- gi No. 3892189
- % Identity 71.8
- Alignment Length 39

- Location of Alignment in SEQ ID NO 90: from 1 to 11
- Alignment No. 1555
- gi No. 3892189
- % Identity 90.2
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1556
- gi No. 3892189
- % Identity 83
- Alignment Length 88
- Location of Alignment in SEQ ID NO 90: from 1 to 87
- Alignment No. 1557
- gi No. 402242
- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1558
- gi No. 402242
- % Identity 96.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1559
- gi No. 4049712
- % Identity 80.5
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1560
- gi No. 4049712
- % Identity 84.6
- Alignment Length 78
- Location of Alignment in SEQ ID NO 90: from 1 to 78
- Alignment No. 1561
- gi No. 4102845
- % Identity 83.3
- Alignment Length 36
- Location of Alignment in SEQ ID NO 90: from 82 to 117
- Alignment No. 1562
- gi No. 4102845
- % Identity 85.9
- Alignment Length 71
- Location of Alignment in SEQ ID NO 90: from 6 to 76
- Alignment No. 1563
- gi No. 4105408
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1564
- gi No. 4105408
- % Identity 94.4
- Alignment Length 108
- Location of Alignment in SEQ ID NO 90: from 10 to 117

- Alignment No. 1565
- gi No. 4105408
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1566
- gi No. 4105408
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1567
- gi No. 4115337
- % Identity 97.1
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1568
- gi No. 4115337
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1569
- gi No. 4115337
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1570
- gi No. 4115337
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1571
- gi No. 4115337
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1572
- gi No. 4115337
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1573
- gi No. 4150898
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1574
- gi No. 4150898
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117



- Alignment No. 1575
- gi No. 4150898
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1576
- gi No. 4150898
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1577
- gi No. 4150912
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1578
- gi No. 4150912
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1579
- gi No. 4150912
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1580
- gi No. 4150912
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1581
- gi No. 4150912
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1582
- gi No. 4150914
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1583
- gi No. 4150914
- % Identity 94.6
- Alignment Length 111
- Location of Alignment in SEQ ID NO 90: from 7 to 117
  
- Alignment No. 1584
- gi No. 4151082
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1585

- gi No. 4151082
- % Identity 94.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1586
- gi No. 418854
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1587
- gi No. 418854
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1588
- gi No. 418854
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1589
- gi No. 418854
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1590
- gi No. 418854
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1591
- gi No. 418854
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1592
- gi No. 421735
- % Identity 94.7
- Alignment Length 19
- Location of Alignment in SEQ ID NO 90: from 77 to 95
  
- Alignment No. 1593
- gi No. 421735
- % Identity 89.5
- Alignment Length 19
- Location of Alignment in SEQ ID NO 90: from 1 to 19
  
- Alignment No. 1594
- gi No. 421867
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1595
- gi No. 421867

- % Identity 97.4
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1596
- gi No. 421929
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1597
- gi No. 421929
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1598
- gi No. 421929
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1599
- gi No. 421929
- % Identity 97.9
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1600
- gi No. 421929
- % Identity 97.9
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1601
- gi No. 421929
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1602
- gi No. 421929
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1603
- gi No. 422248
- % Identity 95.2
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1604
- gi No. 422248
- % Identity 98.3
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1605
- gi No. 422248
- % Identity 97.2

- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1606
- gi No. 422248
- % Identity 97.2
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1607
- gi No. 422248
- % Identity 97.2
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1608
- gi No. 422269
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1609
- gi No. 422269
- % Identity 92.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1610
- gi No. 422270
- % Identity 90.2
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1611
- gi No. 422270
- % Identity 88.3
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1612
- gi No. 422271
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1613
- gi No. 422271
- % Identity 90.9
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1614
- gi No. 433970
- % Identity 95.1
- Alignment Length 82
- Location of Alignment in SEQ ID NO 90: from 36 to 117
  
- Alignment No. 1615
- gi No. 433970
- % Identity 94.2
- Alignment Length 103

- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1616
- gi No. 433970
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1617
- gi No. 433970
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1618
- gi No. 433970
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1619
- gi No. 433970
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1620
- gi No. 444791
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1621
- gi No. 444791
- % Identity 94
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1622
- gi No. 444791
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1623
- gi No. 444791
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1624
- gi No. 4506713
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1625
- gi No. 4506713
- % Identity 94.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76

- Alignment No. 1626
- gi No. 4507761
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1627
- gi No. 4507761
- % Identity 93.5
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1628
- gi No. 4510359
- % Identity 97.6
- Alignment Length 42
- Location of Alignment in SEQ ID NO 90: from 36 to 77
  
- Alignment No. 1629
- gi No. 456779
- % Identity 92
- Alignment Length 25
- Location of Alignment in SEQ ID NO 90: from 77 to 101
  
- Alignment No. 1630
- gi No. 456779
- % Identity 88
- Alignment Length 25
- Location of Alignment in SEQ ID NO 90: from 1 to 25
  
- Alignment No. 1631
- gi No. 4586594
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1632
- gi No. 4586594
- % Identity 96.6
- Alignment Length 59
- Location of Alignment in SEQ ID NO 90: from 1 to 32
  
- Alignment No. 1633
- gi No. 4586594
- % Identity 99.1
- Alignment Length 108
- Location of Alignment in SEQ ID NO 90: from 1 to 108
  
- Alignment No. 1634
- gi No. 4587232
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1635
- gi No. 4587232
- % Identity 94.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76

- Alignment No. 1636
- gi No. 4587234
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1637
- gi No. 4587234
- % Identity 93.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1638
- gi No. 4587236
- % Identity 94.2
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1639
- gi No. 4587236
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1640
- gi No. 4587236
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1641
- gi No. 4587236
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1642
- gi No. 4587236
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1643
- gi No. 4587236
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1644
- gi No. 4587236
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1645
- gi No. 4587236
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1646

- gi No. 4587236
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1647
- gi No. 4587236
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1648
- gi No. 4587236
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1649
- gi No. 4587236
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1650
- gi No. 4587534
- % Identity 74
- Alignment Length 73
- Location of Alignment in SEQ ID NO 90: from 1 to 73
  
- Alignment No. 1651
- gi No. 4589760
- % Identity 95.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1652
- gi No. 4589760
- % Identity 96.6
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1653
- gi No. 463363
- % Identity 80.5
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1654
- gi No. 463363
- % Identity 84.2
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1655
- gi No. 463365
- % Identity 85.4
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1656
- gi No. 463365



- % Identity 89.5
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1657
- gi No. 463367
- % Identity 82.9
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1658
- gi No. 463367
- % Identity 88.2
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1659
- gi No. 463369
- % Identity 85.4
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1660
- gi No. 463369
- % Identity 90.8
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1661
- gi No. 463371
- % Identity 82.9
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1662
- gi No. 463371
- % Identity 86.8
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1663
- gi No. 463373
- % Identity 87.8
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1664
- gi No. 463373
- % Identity 92.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1665
- gi No. 463375
- % Identity 90.2
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1666
- gi No. 463375
- % Identity 90.8

- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1667
- gi No. 464989
- % Identity 73.2
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1668
- gi No. 464989
- % Identity 80.3
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1669
- gi No. 464990
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1670
- gi No. 464990
- % Identity 92.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1671
- gi No. 468272
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1672
- gi No. 468272
- % Identity 93.5
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 1 to 77
- Alignment No. 1673
- gi No. 4737
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1674
- gi No. 4737
- % Identity 93.6
- Alignment Length 47
- Location of Alignment in SEQ ID NO 90: from 1 to 47
- Alignment No. 1675
- gi No. 477437
- % Identity 76
- Alignment Length 25
- Location of Alignment in SEQ ID NO 90: from 79 to 103
- Alignment No. 1676
- gi No. 477437
- % Identity 72
- Alignment Length 25

- Location of Alignment in SEQ ID NO 90: from 3 to 27
- Alignment No. 1677
- gi No. 477630
- % Identity 93.8
- Alignment Length 97
- Location of Alignment in SEQ ID NO 90: from 21 to 117
- Alignment No. 1678
- gi No. 477630
- % Identity 93.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1679
- gi No. 477815
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1680
- gi No. 477815
- % Identity 92.2
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 1 to 77
- Alignment No. 1681
- gi No. 478811
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1682
- gi No. 478811
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1683
- gi No. 478811
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1684
- gi No. 478811
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1685
- gi No. 4809266
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1686
- gi No. 4809266
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1687
- gi No. 4809266
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1688
- gi No. 4809266
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1689
- gi No. 4809266
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1690
- gi No. 481477
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1691
- gi No. 481477
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1692
- gi No. 481477
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1693
- gi No. 481477
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1694
- gi No. 481477
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1695
- gi No. 481477
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1696
- gi No. 485427
- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117

- Alignment No. 1697
- gi No. 485427
- % Identity 94.3
- Alignment Length 70
- Location of Alignment in SEQ ID NO 90: from 1 to 70
  
- Alignment No. 1698
- gi No. 485518
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1699
- gi No. 485518
- % Identity 97.4
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1700
- gi No. 49586
- % Identity 93.9
- Alignment Length 98
- Location of Alignment in SEQ ID NO 90: from 1 to 71
  
- Alignment No. 1701
- gi No. 49586
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1702
- gi No. 49586
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1703
- gi No. 510473
- % Identity 86.2
- Alignment Length 116
- Location of Alignment in SEQ ID NO 90: from 1 to 89
  
- Alignment No. 1704
- gi No. 510473
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1705
- gi No. 510473
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1706
- gi No. 510473
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1707

- gi No. 510473
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1708
- gi No. 510473
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1709
- gi No. 510473
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1710
- gi No. 510473
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1711
- gi No. 510473
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1712
- gi No. 510476
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1713
- gi No. 510476
- % Identity 93.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1714
- gi No. 5107695
- % Identity 80.5
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1715
- gi No. 5107695
- % Identity 86.8
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1716
- gi No. 539404
- % Identity 71.8
- Alignment Length 39
- Location of Alignment in SEQ ID NO 90: from 1 to 11
  
- Alignment No. 1717
- gi No. 539404

- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1718
- gi No. 539404
- % Identity 84.1
- Alignment Length 88
- Location of Alignment in SEQ ID NO 90: from 1 to 87
  
- Alignment No. 1719
- gi No. 539935
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1720
- gi No. 539935
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1721
- gi No. 539935
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1722
- gi No. 539935
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1723
- gi No. 541546
- % Identity 96.2
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1724
- gi No. 541546
- % Identity 97.4
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1725
- gi No. 541546
- % Identity 97.2
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1726
- gi No. 541546
- % Identity 97.2
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1727
- gi No. 541546
- % Identity 97.2

- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1728
- gi No. 541953
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1729
- gi No. 541953
- % Identity 98.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1730
- gi No. 541954
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1731
- gi No. 541954
- % Identity 98.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1732
- gi No. 542395
- % Identity 100
- Alignment Length 19
- Location of Alignment in SEQ ID NO 90: from 99 to 117
  
- Alignment No. 1733
- gi No. 542395
- % Identity 98.1
- Alignment Length 54
- Location of Alignment in SEQ ID NO 90: from 23 to 76
  
- Alignment No. 1734
- gi No. 5441519
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1735
- gi No. 5441519
- % Identity 93.5
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1736
- gi No. 552237
- % Identity 90.5
- Alignment Length 63
- Location of Alignment in SEQ ID NO 90: from 1 to 36
  
- Alignment No. 1737
- gi No. 552237
- % Identity 94.8
- Alignment Length 77



- Location of Alignment in SEQ ID NO 90: from 36 to 112
- Alignment No. 1738
- gi No. 5523967
- % Identity 96.6
- Alignment Length 58
- Location of Alignment in SEQ ID NO 90: from 60 to 117
- Alignment No. 1739
- gi No. 5523967
- % Identity 89.2
- Alignment Length 102
- Location of Alignment in SEQ ID NO 90: from 1 to 85
- Alignment No. 1740
- gi No. 5523969
- % Identity 88.4
- Alignment Length 112
- Location of Alignment in SEQ ID NO 90: from 1 to 85
- Alignment No. 1741
- gi No. 5523969
- % Identity 94.6
- Alignment Length 129
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1742
- gi No. 5523971
- % Identity 95
- Alignment Length 60
- Location of Alignment in SEQ ID NO 90: from 58 to 117
- Alignment No. 1743
- gi No. 5523971
- % Identity 88.5
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 85
- Alignment No. 1744
- gi No. 5523973
- % Identity 84.8
- Alignment Length 92
- Location of Alignment in SEQ ID NO 90: from 26 to 117
- Alignment No. 1745
- gi No. 5523973
- % Identity 88.4
- Alignment Length 112
- Location of Alignment in SEQ ID NO 90: from 1 to 85
- Alignment No. 1746
- gi No. 5523975
- % Identity 95.5
- Alignment Length 44
- Location of Alignment in SEQ ID NO 90: from 74 to 117
- Alignment No. 1747
- gi No. 5523975
- % Identity 87.5
- Alignment Length 88
- Location of Alignment in SEQ ID NO 90: from 1 to 85

- Alignment No. 1748
- gi No. 5523977
- % Identity 95.3
- Alignment Length 85
- Location of Alignment in SEQ ID NO 90: from 33 to 117
  
- Alignment No. 1749
- gi No. 5523977
- % Identity 88.4
- Alignment Length 112
- Location of Alignment in SEQ ID NO 90: from 1 to 85
  
- Alignment No. 1750
- gi No. 5523979
- % Identity 88.4
- Alignment Length 112
- Location of Alignment in SEQ ID NO 90: from 1 to 85
  
- Alignment No. 1751
- gi No. 5523979
- % Identity 95
- Alignment Length 119
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1752
- gi No. 5523981
- % Identity 86.8
- Alignment Length 68
- Location of Alignment in SEQ ID NO 90: from 50 to 117
  
- Alignment No. 1753
- gi No. 5523981
- % Identity 83
- Alignment Length 112
- Location of Alignment in SEQ ID NO 90: from 1 to 85
  
- Alignment No. 1754
- gi No. 5523983
- % Identity 92.3
- Alignment Length 39
- Location of Alignment in SEQ ID NO 90: from 79 to 117
  
- Alignment No. 1755
- gi No. 5523983
- % Identity 85.5
- Alignment Length 83
- Location of Alignment in SEQ ID NO 90: from 3 to 85
  
- Alignment No. 1756
- gi No. 5523985
- % Identity 95.5
- Alignment Length 89
- Location of Alignment in SEQ ID NO 90: from 29 to 117
  
- Alignment No. 1757
- gi No. 5523985
- % Identity 87.5
- Alignment Length 112
- Location of Alignment in SEQ ID NO 90: from 1 to 85

- Alignment No. 1758
- gi No. 5523987
- % Identity 96.6
- Alignment Length 89
- Location of Alignment in SEQ ID NO 90: from 29 to 117
  
- Alignment No. 1759
- gi No. 5523987
- % Identity 88.4
- Alignment Length 112
- Location of Alignment in SEQ ID NO 90: from 1 to 85
  
- Alignment No. 1760
- gi No. 5531273
- % Identity 94.2
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1761
- gi No. 5531273
- % Identity 96.6
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1762
- gi No. 5531273
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1763
- gi No. 5531273
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1764
- gi No. 5531273
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1765
- gi No. 5531278
- % Identity 71.8
- Alignment Length 39
- Location of Alignment in SEQ ID NO 90: from 1 to 11
  
- Alignment No. 1766
- gi No. 5531278
- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1767
- gi No. 5531278
- % Identity 86.4
- Alignment Length 88
- Location of Alignment in SEQ ID NO 90: from 1 to 87
  
- Alignment No. 1768

- gi No. 5531281
- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1769
- gi No. 5531281
- % Identity 96.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1770
- gi No. 554564
- % Identity 90.9
- Alignment Length 44
- Location of Alignment in SEQ ID NO 90: from 74 to 117
  
- Alignment No. 1771
- gi No. 554564
- % Identity 91.3
- Alignment Length 80
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1772
- gi No. 567767
- % Identity 88.4
- Alignment Length 112
- Location of Alignment in SEQ ID NO 90: from 1 to 85
  
- Alignment No. 1773
- gi No. 567767
- % Identity 94
- Alignment Length 133
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1774
- gi No. 571519
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1775
- gi No. 571519
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1776
- gi No. 571519
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1777
- gi No. 571519
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1778
- gi No. 571519

- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1779
- gi No. 571519
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1780
- gi No. 576773
- % Identity 96.2
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1781
- gi No. 576773
- % Identity 98.3
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1782
- gi No. 576773
- % Identity 97.2
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1783
- gi No. 576773
- % Identity 96.5
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1784
- gi No. 576773
- % Identity 96.5
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1785
- gi No. 576775
- % Identity 71.8
- Alignment Length 39
- Location of Alignment in SEQ ID NO 90: from 1 to 11
  
- Alignment No. 1786
- gi No. 576775
- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1787
- gi No. 576775
- % Identity 86.4
- Alignment Length 88
- Location of Alignment in SEQ ID NO 90: from 1 to 87
  
- Alignment No. 1788
- gi No. 578545
- % Identity 88.2

- Alignment Length 102
- Location of Alignment in SEQ ID NO 90: from 1 to 75
  
- Alignment No. 1789
- gi No. 578545
- % Identity 82.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1790
- gi No. 578545
- % Identity 87.5
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1791
- gi No. 578545
- % Identity 84
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1792
- gi No. 578545
- % Identity 88.9
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1793
- gi No. 578546
- % Identity 85.3
- Alignment Length 102
- Location of Alignment in SEQ ID NO 90: from 1 to 75
  
- Alignment No. 1794
- gi No. 578546
- % Identity 80.3
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1795
- gi No. 578546
- % Identity 85.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1796
- gi No. 578546
- % Identity 82.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1797
- gi No. 578546
- % Identity 85.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1798
- gi No. 578549
- % Identity 82.4
- Alignment Length 102

- Location of Alignment in SEQ ID NO 90: from 1 to 75
- Alignment No. 1799
- gi No. 578549
- % Identity 79.5
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1800
- gi No. 578549
- % Identity 83.3
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1801
- gi No. 578549
- % Identity 84
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1802
- gi No. 578551
- % Identity 88.2
- Alignment Length 102
- Location of Alignment in SEQ ID NO 90: from 1 to 75
- Alignment No. 1803
- gi No. 578551
- % Identity 86.3
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1804
- gi No. 578551
- % Identity 86.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1805
- gi No. 578551
- % Identity 88.2
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1806
- gi No. 578551
- % Identity 84
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1807
- gi No. 600539
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1808
- gi No. 600539
- % Identity 94.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76

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- Alignment No. 1809
- gi No. 602076
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1810
- gi No. 602076
- % Identity 98.6
- Alignment Length 140
- Location of Alignment in SEQ ID NO 90: from 1 to 113
  
- Alignment No. 1811
- gi No. 602076
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1812
- gi No. 602076
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1813
- gi No. 625174
- % Identity 95
- Alignment Length 100
- Location of Alignment in SEQ ID NO 90: from 18 to 117
  
- Alignment No. 1814
- gi No. 625174
- % Identity 87.2
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 89
  
- Alignment No. 1815
- gi No. 625174
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1816
- gi No. 625509
- % Identity 95
- Alignment Length 80
- Location of Alignment in SEQ ID NO 90: from 1 to 53
  
- Alignment No. 1817
- gi No. 625509
- % Identity 99.3
- Alignment Length 137
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1818
- gi No. 625509
- % Identity 97.2
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117



- Alignment No. 1819
- gi No. 625509
- % Identity 96.5
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1820
- gi No. 630455
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1821
- gi No. 630455
- % Identity 94.8
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1822
- gi No. 630479
- % Identity 90.3
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1823
- gi No. 630479
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1824
- gi No. 630479
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1825
- gi No. 630479
- % Identity 91.7
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1826
- gi No. 630479
- % Identity 91.7
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1827
- gi No. 630479
- % Identity 91.7
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1828
- gi No. 70636
- % Identity 93.8
- Alignment Length 97
- Location of Alignment in SEQ ID NO 90: from 1 to 70
  
- Alignment No. 1829

- gi No. 70636
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1830
- gi No. 70636
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1831
- gi No. 70637
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1832
- gi No. 70637
- % Identity 94.6
- Alignment Length 74
- Location of Alignment in SEQ ID NO 90: from 1 to 74
  
- Alignment No. 1833
- gi No. 70639
- % Identity 95.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1834
- gi No. 70639
- % Identity 96.6
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1835
- gi No. 70639
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1836
- gi No. 70639
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1837
- gi No. 70640
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1838
- gi No. 70640
- % Identity 96.2
- Alignment Length 78
- Location of Alignment in SEQ ID NO 90: from 1 to 78
  
- Alignment No. 1839
- gi No. 70642

- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1840
- gi No. 70642
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1841
- gi No. 70642
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1842
- gi No. 70642
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1843
- gi No. 70642
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1844
- gi No. 70643
- % Identity 100
- Alignment Length 52
- Location of Alignment in SEQ ID NO 90: from 66 to 117
  
- Alignment No. 1845
- gi No. 70643
- % Identity 98.9
- Alignment Length 87
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1846
- gi No. 70644
- % Identity 100
- Alignment Length 70
- Location of Alignment in SEQ ID NO 90: from 48 to 117
  
- Alignment No. 1847
- gi No. 70644
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1848
- gi No. 70644
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1849
- gi No. 70644
- % Identity 98.6

- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1850
- gi No. 70644
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1851
- gi No. 70644
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1852
- gi No. 70645
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1853
- gi No. 70645
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1854
- gi No. 70645
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1855
- gi No. 70645
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1856
- gi No. 70645
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1857
- gi No. 70646
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1858
- gi No. 70646
- % Identity 93.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1859
- gi No. 70647
- % Identity 92.2
- Alignment Length 103

- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1860
- gi No. 70647
- % Identity 91.5
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1861
- gi No. 70647
- % Identity 91.7
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1862
- gi No. 70648
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1863
- gi No. 70648
- % Identity 92.2
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 1 to 77
- Alignment No. 1864
- gi No. 70650
- % Identity 76.3
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1865
- gi No. 70653
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1866
- gi No. 70653
- % Identity 91
- Alignment Length 78
- Location of Alignment in SEQ ID NO 90: from 1 to 78
- Alignment No. 1867
- gi No. 70654
- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1868
- gi No. 70654
- % Identity 96.1
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 1 to 77
- Alignment No. 1869
- gi No. 70657
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117

- Alignment No. 1870
- gi No. 70657
- % Identity 94.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1871
- gi No. 70658
- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1872
- gi No. 70658
- % Identity 96.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1873
- gi No. 70659
- % Identity 97.2
- Alignment Length 36
- Location of Alignment in SEQ ID NO 90: from 82 to 117
  
- Alignment No. 1874
- gi No. 70659
- % Identity 95.8
- Alignment Length 71
- Location of Alignment in SEQ ID NO 90: from 6 to 76
  
- Alignment No. 1875
- gi No. 70660
- % Identity 90.2
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1876
- gi No. 70660
- % Identity 92.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1877
- gi No. 726391
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1878
- gi No. 726391
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1879
- gi No. 726391
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1880
- gi No. 726391
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1881
- gi No. 726391
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1882
- gi No. 726391
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1883
- gi No. 726391
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1884
- gi No. 726391
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1885
- gi No. 726391
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1886
- gi No. 726391
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1887
- gi No. 726391
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1888
- gi No. 82040
- % Identity 98.8
- Alignment Length 82
- Location of Alignment in SEQ ID NO 90: from 36 to 117
  
- Alignment No. 1889
- gi No. 82040
- % Identity 98.6
- Alignment Length 139
- Location of Alignment in SEQ ID NO 90: from 1 to 112
  
- Alignment No. 1890

- gi No. 82040
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1891
- gi No. 82040
- % Identity 97.9
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1892
- gi No. 82284
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1893
- gi No. 82284
- % Identity 98.2
- Alignment Length 56
- Location of Alignment in SEQ ID NO 90: from 1 to 56
  
- Alignment No. 1894
- gi No. 82286
- % Identity 100
- Alignment Length 20
- Location of Alignment in SEQ ID NO 90: from 57 to 76
  
- Alignment No. 1895
- gi No. 82287
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1896
- gi No. 82287
- % Identity 97.9
- Alignment Length 48
- Location of Alignment in SEQ ID NO 90: from 1 to 48
  
- Alignment No. 1897
- gi No. 82288
- % Identity 100
- Alignment Length 40
- Location of Alignment in SEQ ID NO 90: from 37 to 76
  
- Alignment No. 1898
- gi No. 82426
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1899
- gi No. 82426
- % Identity 99.3
- Alignment Length 135
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1900
- gi No. 82512



- % Identity 100
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 41 to 117
  
- Alignment No. 1901
- gi No. 82512
- % Identity 97.1
- Alignment Length 104
- Location of Alignment in SEQ ID NO 90: from 1 to 77
  
- Alignment No. 1902
- gi No. 82512
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1903
- gi No. 825728
- % Identity 94.7
- Alignment Length 38
- Location of Alignment in SEQ ID NO 90: from 40 to 77
  
- Alignment No. 1904
- gi No. 82733
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1905
- gi No. 82733
- % Identity 98.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1906
- gi No. 82734
- % Identity 100
- Alignment Length 83
- Location of Alignment in SEQ ID NO 90: from 35 to 117
  
- Alignment No. 1907
- gi No. 82734
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1908
- gi No. 82734
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1909
- gi No. 82734
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1910
- gi No. 829173
- % Identity 89.7

- Alignment Length 29
- Location of Alignment in SEQ ID NO 90: from 89 to 117
- Alignment No. 1911
- gi No. 829173
- % Identity 89.4
- Alignment Length 66
- Location of Alignment in SEQ ID NO 90: from 13 to 78
- Alignment No. 1912
- gi No. 83594
- % Identity 71.8
- Alignment Length 39
- Location of Alignment in SEQ ID NO 90: from 1 to 11
- Alignment No. 1913
- gi No. 83594
- % Identity 97.6
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1914
- gi No. 83594
- % Identity 86.4
- Alignment Length 88
- Location of Alignment in SEQ ID NO 90: from 1 to 87
- Alignment No. 1915
- gi No. 83596
- % Identity 95.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1916
- gi No. 83596
- % Identity 96.6
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1917
- gi No. 83596
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1918
- gi No. 83596
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1919
- gi No. 83596
- % Identity 95.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1920
- gi No. 84151
- % Identity 92.3
- Alignment Length 104

- Location of Alignment in SEQ ID NO 90: from 1 to 77
- Alignment No. 1921
- gi No. 84151
- % Identity 93.2
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1922
- gi No. 84151
- % Identity 93.1
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1923
- gi No. 84152
- % Identity 92.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1924
- gi No. 84152
- % Identity 92.3
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1925
- gi No. 84152
- % Identity 92.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1926
- gi No. 84152
- % Identity 91.7
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1927
- gi No. 84152
- % Identity 92.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1928
- gi No. 84336
- % Identity 91.3
- Alignment Length 23
- Location of Alignment in SEQ ID NO 90: from 95 to 117
- Alignment No. 1929
- gi No. 84336
- % Identity 93.3
- Alignment Length 60
- Location of Alignment in SEQ ID NO 90: from 19 to 78
- Alignment No. 1930
- gi No. 84337
- % Identity 92.7
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117

- Alignment No. 1931
- gi No. 84337
- % Identity 89.1
- Alignment Length 46
- Location of Alignment in SEQ ID NO 90: from 1 to 19
- Alignment No. 1932
- gi No. 84337
- % Identity 92.6
- Alignment Length 95
- Location of Alignment in SEQ ID NO 90: from 1 to 95
- Alignment No. 1933
- gi No. 84478
- % Identity 93.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1934
- gi No. 84478
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1935
- gi No. 84478
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1936
- gi No. 84478
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1937
- gi No. 84478
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1938
- gi No. 84478
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1939
- gi No. 84478
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1940
- gi No. 84478
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117

- Alignment No. 1941
- gi No. 84478
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1942
- gi No. 84478
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1943
- gi No. 84478
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1944
- gi No. 84834
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1945
- gi No. 84834
- % Identity 93
- Alignment Length 43
- Location of Alignment in SEQ ID NO 90: from 1 to 16
- Alignment No. 1946
- gi No. 84834
- % Identity 85.9
- Alignment Length 64
- Location of Alignment in SEQ ID NO 90: from 54 to 117
- Alignment No. 1947
- gi No. 84834
- % Identity 95.7
- Alignment Length 92
- Location of Alignment in SEQ ID NO 90: from 1 to 92
- Alignment No. 1948
- gi No. 84834
- % Identity 89.8
- Alignment Length 98
- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1949
- gi No. 85106
- % Identity 93.3
- Alignment Length 105
- Location of Alignment in SEQ ID NO 90: from 1 to 78
- Alignment No. 1950
- gi No. 85106
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1951

- gi No. 85106
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1952
- gi No. 86473
- % Identity 93.8
- Alignment Length 32
- Location of Alignment in SEQ ID NO 90: from 45 to 76
  
- Alignment No. 1953
- gi No. 86474
- % Identity 94.4
- Alignment Length 18
- Location of Alignment in SEQ ID NO 90: from 60 to 77
  
- Alignment No. 1954
- gi No. 870794
- % Identity 74.7
- Alignment Length 99
- Location of Alignment in SEQ ID NO 90: from 1 to 74
  
- Alignment No. 1955
- gi No. 870794
- % Identity 86.3
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1956
- gi No. 870794
- % Identity 75
- Alignment Length 146
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1957
- gi No. 870794
- % Identity 85.2
- Alignment Length 149
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1958
- gi No. 870794
- % Identity 70.2
- Alignment Length 151
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1959
- gi No. 870794
- % Identity 72.8
- Alignment Length 151
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1960
- gi No. 870794
- % Identity 70.8
- Alignment Length 154
- Location of Alignment in SEQ ID NO 90: from 1 to 115
  
- Alignment No. 1961
- gi No. 89311

- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1962
- gi No. 89311
- % Identity 94.4
- Alignment Length 143
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1963
- gi No. 89311
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1964
- gi No. 899115
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1965
- gi No. 899115
- % Identity 96
- Alignment Length 50
- Location of Alignment in SEQ ID NO 90: from 1 to 23
  
- Alignment No. 1966
- gi No. 899115
- % Identity 99
- Alignment Length 99
- Location of Alignment in SEQ ID NO 90: from 1 to 99
  
- Alignment No. 1967
- gi No. 899608
- % Identity 97.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1968
- gi No. 899608
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1969
- gi No. 899608
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1970
- gi No. 899608
- % Identity 97.9
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1971
- gi No. 899608
- % Identity 98.6

- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1972
- gi No. 902525
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 1973
- gi No. 902525
- % Identity 98.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1974
- gi No. 902584
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 1975
- gi No. 902584
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1976
- gi No. 902584
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1977
- gi No. 902584
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1978
- gi No. 902584
- % Identity 97.9
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1979
- gi No. 902584
- % Identity 97.9
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1980
- gi No. 902584
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1981
- gi No. 902586
- % Identity 98.1
- Alignment Length 103



- Location of Alignment in SEQ ID NO 90: from 1 to 76
- Alignment No. 1982
- gi No. 902586
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1983
- gi No. 902586
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1984
- gi No. 902586
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1985
- gi No. 902586
- % Identity 98.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
- Alignment No. 1986
- gi No. 91870
- % Identity 95.7
- Alignment Length 46
- Location of Alignment in SEQ ID NO 90: from 72 to 117
- Alignment No. 1987
- gi No. 91870
- % Identity 87.8
- Alignment Length 49
- Location of Alignment in SEQ ID NO 90: from 1 to 22
- Alignment No. 1988
- gi No. 91870
- % Identity 93.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 90: from 1 to 98
- Alignment No. 1989
- gi No. 91871
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
- Alignment No. 1990
- gi No. 91871
- % Identity 93.5
- Alignment Length 77
- Location of Alignment in SEQ ID NO 90: from 1 to 77
- Alignment No. 1991
- gi No. 9295
- % Identity 82.4
- Alignment Length 34
- Location of Alignment in SEQ ID NO 90: from 84 to 117

- Alignment No. 1992
- gi No. 9295
- % Identity 85.5
- Alignment Length 69
- Location of Alignment in SEQ ID NO 90: from 8 to 76
  
- Alignment No. 1993
- gi No. 940395
- % Identity 94.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1994
- gi No. 940395
- % Identity 88.9
- Alignment Length 135
- Location of Alignment in SEQ ID NO 90: from 1 to 108
  
- Alignment No. 1995
- gi No. 940395
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1996
- gi No. 940395
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1997
- gi No. 940395
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1998
- gi No. 940395
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 1999
- gi No. 940395
- % Identity 94.4
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 2000
- gi No. 940395
- % Identity 93.8
- Alignment Length 144
- Location of Alignment in SEQ ID NO 90: from 1 to 117
  
- Alignment No. 2001
- gi No. 967985
- % Identity 95.1
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117

- Alignment No. 2002
- gi No. 967985
- % Identity 93.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 2003
- gi No. 99469
- % Identity 100
- Alignment Length 42
- Location of Alignment in SEQ ID NO 90: from 38 to 79
  
- Alignment No. 2004
- gi No. 99771
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 2005
- gi No. 99771
- % Identity 98.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 2006
- gi No. 99772
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 2007
- gi No. 99772
- % Identity 98.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76
  
- Alignment No. 2008
- gi No. 99975
- % Identity 100
- Alignment Length 41
- Location of Alignment in SEQ ID NO 90: from 77 to 117
  
- Alignment No. 2009
- gi No. 99975
- % Identity 98.7
- Alignment Length 76
- Location of Alignment in SEQ ID NO 90: from 1 to 76

Maximum Length Sequence corresponding to clone ID 14136

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 91
- Ceres seq\_id 1497966

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 92
- Ceres seq\_id 1497967
- Location of start within SEQ ID NO 91: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2010
- Matrixin

- Location within SEQ ID NO 92: from 79 to 257 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2011
- gi No. 2245019
- % Identity 99.2
- Alignment Length 364
- Location of Alignment in SEQ ID NO 92: from 4 to 367

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 93
- Ceres seq\_id 1497968
- Location of start within SEQ ID NO 91: at 11 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2012
- Matrixin
- Location within SEQ ID NO 93: from 76 to 254 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2013
- gi No. 2245019
- % Identity 99.2
- Alignment Length 364
- Location of Alignment in SEQ ID NO 93: from 1 to 364

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 94
- Ceres seq\_id 1497969
- Location of start within SEQ ID NO 91: at 383 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2014
- Matrixin
- Location within SEQ ID NO 94: from 1 to 130 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2015
- gi No. 2245019
- % Identity 99.2
- Alignment Length 364
- Location of Alignment in SEQ ID NO 94: from 1 to 240

Maximum Length Sequence corresponding to clone ID 14451

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 95
- Ceres seq\_id 1497970

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 96
- Ceres seq\_id 1497971
- Location of start within SEQ ID NO 95: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2016
- gi No. 2285792
- % Identity 99.4
- Alignment Length 168

- Location of Alignment in SEQ ID NO 96: from 5 to 172

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 97
- Ceres seq\_id 1497972
- Location of start within SEQ ID NO 95: at 15 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2017
- gi No. 2285792
- % Identity 99.4
- Alignment Length 168
- Location of Alignment in SEQ ID NO 97: from 1 to 168

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 98
- Ceres seq\_id 1497973
- Location of start within SEQ ID NO 95: at 936 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2018
- gi No. 1350680
- % Identity 99.4
- Alignment Length 170
- Location of Alignment in SEQ ID NO 98: from 1 to 117
- Alignment No. 2019
- gi No. 4887131
- % Identity 85.9
- Alignment Length 170
- Location of Alignment in SEQ ID NO 98: from 1 to 117

Maximum Length Sequence corresponding to clone ID 14759

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 99
- Ceres seq\_id 1497974

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 100
- Ceres seq\_id 1497975
- Location of start within SEQ ID NO 99: at 205 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2020
- gi No. 2245008
- % Identity 80.8
- Alignment Length 73
- Location of Alignment in SEQ ID NO 100: from 15 to 87
- Alignment No. 2021
- gi No. 2583137
- % Identity 75.6
- Alignment Length 90
- Location of Alignment in SEQ ID NO 100: from 32 to 121
- Alignment No. 2022

- gi No. 2894575
- % Identity 75.6
- Alignment Length 78
- Location of Alignment in SEQ ID NO 100: from 1 to 49
  
- Alignment No. 2023
- gi No. 2961343
- % Identity 98.1
- Alignment Length 107
- Location of Alignment in SEQ ID NO 100: from 16 to 122
  
- Alignment No. 2024
- gi No. 3024687
- % Identity 73
- Alignment Length 115
- Location of Alignment in SEQ ID NO 100: from 3 to 117
  
- Alignment No. 2025
- gi No. 3367536
- % Identity 78.1
- Alignment Length 128
- Location of Alignment in SEQ ID NO 100: from 1 to 117
  
- Alignment No. 2026
- gi No. 3810848
- % Identity 70.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 100: from 3 to 119
  
- Alignment No. 2027
- gi No. 4581162
- % Identity 82.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 100: from 1 to 117
  
- Alignment No. 2028
- gi No. 4773906
- % Identity 89.7
- Alignment Length 117
- Location of Alignment in SEQ ID NO 100: from 1 to 117
  
- Alignment No. 2029
- gi No. 4895235
- % Identity 71.3
- Alignment Length 122
- Location of Alignment in SEQ ID NO 100: from 1 to 121
  
- Alignment No. 2030
- gi No. 586441
- % Identity 71.3
- Alignment Length 115
- Location of Alignment in SEQ ID NO 100: from 3 to 117

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 101
- Ceres seq\_id 1497976
- Location of start within SEQ ID NO 99: at 250 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2031
- gi No. 2245008
- % Identity 80.8
- Alignment Length 73
- Location of Alignment in SEQ ID NO 101: from 1 to 72
  
- Alignment No. 2032
- gi No. 2583137
- % Identity 75.6
- Alignment Length 90
- Location of Alignment in SEQ ID NO 101: from 17 to 106
  
- Alignment No. 2033
- gi No. 2894575
- % Identity 75.6
- Alignment Length 78
- Location of Alignment in SEQ ID NO 101: from 1 to 34
  
- Alignment No. 2034
- gi No. 2961343
- % Identity 98.1
- Alignment Length 107
- Location of Alignment in SEQ ID NO 101: from 1 to 107
  
- Alignment No. 2035
- gi No. 3024687
- % Identity 73
- Alignment Length 115
- Location of Alignment in SEQ ID NO 101: from 1 to 102
  
- Alignment No. 2036
- gi No. 3367536
- % Identity 78.1
- Alignment Length 128
- Location of Alignment in SEQ ID NO 101: from 1 to 102
  
- Alignment No. 2037
- gi No. 3810848
- % Identity 70.9
- Alignment Length 117
- Location of Alignment in SEQ ID NO 101: from 1 to 104
  
- Alignment No. 2038
- gi No. 4581162
- % Identity 82.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 101: from 1 to 102
  
- Alignment No. 2039
- gi No. 4773906
- % Identity 89.7
- Alignment Length 117
- Location of Alignment in SEQ ID NO 101: from 1 to 102
  
- Alignment No. 2040
- gi No. 4895235
- % Identity 71.3
- Alignment Length 122
- Location of Alignment in SEQ ID NO 101: from 1 to 106
  
- Alignment No. 2041

- gi No. 586441
- % Identity 71.3
- Alignment Length 115
- Location of Alignment in SEQ ID NO 101: from 1 to 102

Maximum Length Sequence corresponding to clone ID 14911

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 102
- Ceres seq\_id 1497977

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 103
- Ceres seq\_id 1497978
- Location of start within SEQ ID NO 102: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2042
- gi No. 3355477
- % Identity 86.4
- Alignment Length 44
- Location of Alignment in SEQ ID NO 103: from 1 to 44

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 104
- Ceres seq\_id 1497979
- Location of start within SEQ ID NO 102: at 155 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 15392

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 105
- Ceres seq\_id 1497987

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 106
- Ceres seq\_id 1497988
- Location of start within SEQ ID NO 105: at 215 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2043
- Signal peptidase I
- Location within SEQ ID NO 106: from 187 to 292 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2044
- gi No. 1946373
- % Identity 76.4
- Alignment Length 258
- Location of Alignment in SEQ ID NO 106: from 114 to 367
- Alignment No. 2045
- gi No. 2769566
- % Identity 72.1
- Alignment Length 305
- Location of Alignment in SEQ ID NO 106: from 67 to 367

(B) Polypeptide Sequence



- Pat. Appln. SEQ ID NO 107
- Ceres seq\_id 1497989
- Location of start within SEQ ID NO 105: at 437 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2046
- Signal peptidase I
- Location within SEQ ID NO 107: from 113 to 218 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2047
- gi No. 1946373
- % Identity 76.4
- Alignment Length 258
- Location of Alignment in SEQ ID NO 107: from 40 to 293
- Alignment No. 2048
- gi No. 2769566
- % Identity 72.1
- Alignment Length 305
- Location of Alignment in SEQ ID NO 107: from 1 to 293

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 108
- Ceres seq\_id 1497990
- Location of start within SEQ ID NO 105: at 500 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2049
- Signal peptidase I
- Location within SEQ ID NO 108: from 92 to 197 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2050
- gi No. 1946373
- % Identity 76.4
- Alignment Length 258
- Location of Alignment in SEQ ID NO 108: from 19 to 272
- Alignment No. 2051
- gi No. 2769566
- % Identity 72.1
- Alignment Length 305
- Location of Alignment in SEQ ID NO 108: from 1 to 272

Maximum Length Sequence corresponding to clone ID 15418

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 109
- Ceres seq\_id 1497991

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 110
- Ceres seq\_id 1497992
- Location of start within SEQ ID NO 109: at 98 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2052
- Core histone H2A/H2B/H3/H4
- Location within SEQ ID NO 110: from 2 to 97 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2053
- gi No. 102290
- % Identity 97.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2054
- gi No. 102411
- % Identity 81.9
- Alignment Length 105
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2055
- gi No. 1085564
- % Identity 85.7
- Alignment Length 28
- Location of Alignment in SEQ ID NO 110: from 5 to 32
  
- Alignment No. 2056
- gi No. 1199967
- % Identity 100
- Alignment Length 58
- Location of Alignment in SEQ ID NO 110: from 46 to 103
  
- Alignment No. 2057
- gi No. 122092
- % Identity 92.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2058
- gi No. 122093
- % Identity 82
- Alignment Length 100
- Location of Alignment in SEQ ID NO 110: from 5 to 103
  
- Alignment No. 2059
- gi No. 122094
- % Identity 92.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2060
- gi No. 122095
- % Identity 82.5
- Alignment Length 104
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2061
- gi No. 122097
- % Identity 97.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2062
- gi No. 122099
- % Identity 91.3
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103

- Alignment No. 2063
- gi No. 122100
- % Identity 82.7
- Alignment Length 104
- Location of Alignment in SEQ ID NO 110: from 1 to 103
- Alignment No. 2064
- gi No. 122101
- % Identity 97.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
- Alignment No. 2065
- gi No. 122102
- % Identity 97.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
- Alignment No. 2066
- gi No. 122103
- % Identity 90.3
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
- Alignment No. 2067
- gi No. 122104
- % Identity 96.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
- Alignment No. 2068
- gi No. 122105
- % Identity 97.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
- Alignment No. 2069
- gi No. 122106
- % Identity 100
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
- Alignment No. 2070
- gi No. 122107
- % Identity 91.3
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
- Alignment No. 2071
- gi No. 1326372
- % Identity 97.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
- Alignment No. 2072
- gi No. 1360624
- % Identity 94.1
- Alignment Length 34
- Location of Alignment in SEQ ID NO 110: from 1 to 34

- Alignment No. 2073
- gi No. 1360628
- % Identity 92.1
- Alignment Length 101
- Location of Alignment in SEQ ID NO 110: from 1 to 101
  
- Alignment No. 2074
- gi No. 1493813
- % Identity 97.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2075
- gi No. 157620
- % Identity 97
- Alignment Length 33
- Location of Alignment in SEQ ID NO 110: from 1 to 33
  
- Alignment No. 2076
- gi No. 1708110
- % Identity 97.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2077
- gi No. 1708778
- % Identity 85.4
- Alignment Length 89
- Location of Alignment in SEQ ID NO 110: from 9 to 95
  
- Alignment No. 2078
- gi No. 1731927
- % Identity 93.4
- Alignment Length 91
- Location of Alignment in SEQ ID NO 110: from 1 to 91
  
- Alignment No. 2079
- gi No. 1763310
- % Identity 79.4
- Alignment Length 107
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2080
- gi No. 1806283
- % Identity 99
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2081
- gi No. 1881597
- % Identity 100
- Alignment Length 24
- Location of Alignment in SEQ ID NO 110: from 80 to 103
  
- Alignment No. 2082
- gi No. 1881605
- % Identity 93.8
- Alignment Length 16
- Location of Alignment in SEQ ID NO 110: from 1 to 16
  
- Alignment No. 2083

- gi No. 1883001
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2084
- gi No. 1883026
- % Identity 93.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2085
- gi No. 1883028
- % Identity 95.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2086
- gi No. 1883030
- % Identity 93.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2087
- gi No. 1883034
- % Identity 95.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2088
- gi No. 1885348
- % Identity 94.2
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2089
- gi No. 2062367
- % Identity 87.3
- Alignment Length 79
- Location of Alignment in SEQ ID NO 110: from 20 to 98
  
- Alignment No. 2090
- gi No. 2134084
- % Identity 100
- Alignment Length 23
- Location of Alignment in SEQ ID NO 110: from 1 to 23
  
- Alignment No. 2091
- gi No. 2137382
- % Identity 96.4
- Alignment Length 55
- Location of Alignment in SEQ ID NO 110: from 49 to 103
  
- Alignment No. 2092
- gi No. 223582
- % Identity 97.1
- Alignment Length 102
- Location of Alignment in SEQ ID NO 110: from 2 to 103
  
- Alignment No. 2093
- gi No. 223793

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- % Identity 93.1
- Alignment Length 102
- Location of Alignment in SEQ ID NO 110: from 2 to 103
  
- Alignment No. 2094
- gi No. 224293
- % Identity 99
- Alignment Length 102
- Location of Alignment in SEQ ID NO 110: from 2 to 103
  
- Alignment No. 2095
- gi No. 2352807
- % Identity 97.3
- Alignment Length 37
- Location of Alignment in SEQ ID NO 110: from 34 to 70
  
- Alignment No. 2096
- gi No. 2495141
- % Identity 95.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2097
- gi No. 2495143
- % Identity 86
- Alignment Length 43
- Location of Alignment in SEQ ID NO 110: from 5 to 45
  
- Alignment No. 2098
- gi No. 2564209
- % Identity 95.5
- Alignment Length 67
- Location of Alignment in SEQ ID NO 110: from 25 to 91
  
- Alignment No. 2099
- gi No. 2851582
- % Identity 86
- Alignment Length 93
- Location of Alignment in SEQ ID NO 110: from 5 to 95
  
- Alignment No. 2100
- gi No. 2995208
- % Identity 79.7
- Alignment Length 74
- Location of Alignment in SEQ ID NO 110: from 1 to 72
  
- Alignment No. 2101
- gi No. 2995217
- % Identity 73.9
- Alignment Length 69
- Location of Alignment in SEQ ID NO 110: from 5 to 72
  
- Alignment No. 2102
- gi No. 2995226
- % Identity 72.6
- Alignment Length 73
- Location of Alignment in SEQ ID NO 110: from 1 to 72
  
- Alignment No. 2103
- gi No. 2995229
- % Identity 74

- Alignment Length 73
- Location of Alignment in SEQ ID NO 110: from 1 to 72
  
- Alignment No. 2104
- gi No. 2995232
- % Identity 72.6
- Alignment Length 73
- Location of Alignment in SEQ ID NO 110: from 1 to 72
  
- Alignment No. 2105
- gi No. 2995265
- % Identity 76.4
- Alignment Length 72
- Location of Alignment in SEQ ID NO 110: from 3 to 72
  
- Alignment No. 2106
- gi No. 2995268
- % Identity 72.6
- Alignment Length 73
- Location of Alignment in SEQ ID NO 110: from 1 to 72
  
- Alignment No. 2107
- gi No. 3023903
- % Identity 80.9
- Alignment Length 89
- Location of Alignment in SEQ ID NO 110: from 9 to 95
  
- Alignment No. 2108
- gi No. 32097
- % Identity 95.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2109
- gi No. 3287225
- % Identity 97
- Alignment Length 101
- Location of Alignment in SEQ ID NO 110: from 3 to 103
  
- Alignment No. 2110
- gi No. 3745759
- % Identity 97.7
- Alignment Length 87
- Location of Alignment in SEQ ID NO 110: from 17 to 103
  
- Alignment No. 2111
- gi No. 3881586
- % Identity 96.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2112
- gi No. 404467
- % Identity 96.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2113
- gi No. 4139870
- % Identity 97.4
- Alignment Length 76

- Location of Alignment in SEQ ID NO 110: from 28 to 103
- Alignment No. 2114
- gi No. 419771
- % Identity 100
- Alignment Length 24
- Location of Alignment in SEQ ID NO 110: from 2 to 25
- Alignment No. 2115
- gi No. 4376196
- % Identity 84.5
- Alignment Length 71
- Location of Alignment in SEQ ID NO 110: from 17 to 87
- Alignment No. 2116
- gi No. 4376213
- % Identity 83.1
- Alignment Length 71
- Location of Alignment in SEQ ID NO 110: from 17 to 87
- Alignment No. 2117
- gi No. 4376214
- % Identity 83.1
- Alignment Length 71
- Location of Alignment in SEQ ID NO 110: from 17 to 87
- Alignment No. 2118
- gi No. 4377535
- % Identity 80.3
- Alignment Length 71
- Location of Alignment in SEQ ID NO 110: from 18 to 87
- Alignment No. 2119
- gi No. 4377536
- % Identity 78.9
- Alignment Length 71
- Location of Alignment in SEQ ID NO 110: from 18 to 87
- Alignment No. 2120
- gi No. 4377539
- % Identity 78.9
- Alignment Length 71
- Location of Alignment in SEQ ID NO 110: from 18 to 87
- Alignment No. 2121
- gi No. 4377541
- % Identity 78.9
- Alignment Length 71
- Location of Alignment in SEQ ID NO 110: from 18 to 87
- Alignment No. 2122
- gi No. 4379340
- % Identity 77.1
- Alignment Length 35
- Location of Alignment in SEQ ID NO 110: from 38 to 72
- Alignment No. 2123
- gi No. 4379375
- % Identity 80
- Alignment Length 50
- Location of Alignment in SEQ ID NO 110: from 19 to 68



- Alignment No. 2124
- gi No. 4379376
- % Identity 84.1
- Alignment Length 69
- Location of Alignment in SEQ ID NO 110: from 19 to 87
  
- Alignment No. 2125
- gi No. 4379388
- % Identity 71.4
- Alignment Length 35
- Location of Alignment in SEQ ID NO 110: from 38 to 72
  
- Alignment No. 2126
- gi No. 4504301
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2127
- gi No. 4504319
- % Identity 82.7
- Alignment Length 98
- Location of Alignment in SEQ ID NO 110: from 1 to 98
  
- Alignment No. 2128
- gi No. 462242
- % Identity 97.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2129
- gi No. 462243
- % Identity 99
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2130
- gi No. 462244
- % Identity 95.1
- Alignment Length 102
- Location of Alignment in SEQ ID NO 110: from 1 to 102
  
- Alignment No. 2131
- gi No. 484442
- % Identity 97.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2132
- gi No. 515377
- % Identity 99
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2133
- gi No. 578468
- % Identity 96.5
- Alignment Length 57
- Location of Alignment in SEQ ID NO 110: from 10 to 66

- Alignment No. 2134
- gi No. 627117
- % Identity 100
- Alignment Length 17
- Location of Alignment in SEQ ID NO 110: from 2 to 18
  
- Alignment No. 2135
- gi No. 663070
- % Identity 98.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2136
- gi No. 70762
- % Identity 98
- Alignment Length 102
- Location of Alignment in SEQ ID NO 110: from 2 to 103
  
- Alignment No. 2137
- gi No. 70768
- % Identity 97.1
- Alignment Length 102
- Location of Alignment in SEQ ID NO 110: from 2 to 103
  
- Alignment No. 2138
- gi No. 70770
- % Identity 97.2
- Alignment Length 71
- Location of Alignment in SEQ ID NO 110: from 2 to 72
  
- Alignment No. 2139
- gi No. 70772
- % Identity 100
- Alignment Length 102
- Location of Alignment in SEQ ID NO 110: from 2 to 103
  
- Alignment No. 2140
- gi No. 70774
- % Identity 99
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2141
- gi No. 70777
- % Identity 83
- Alignment Length 100
- Location of Alignment in SEQ ID NO 110: from 5 to 103
  
- Alignment No. 2142
- gi No. 729679
- % Identity 73
- Alignment Length 111
- Location of Alignment in SEQ ID NO 110: from 2 to 101
  
- Alignment No. 2143
- gi No. 84353
- % Identity 100
- Alignment Length 13
- Location of Alignment in SEQ ID NO 110: from 85 to 97
  
- Alignment No. 2144

- gi No. 84353
- % Identity 74.5
- Alignment Length 51
- Location of Alignment in SEQ ID NO 110: from 5 to 54
  
- Alignment No. 2145
- gi No. 84363
- % Identity 94.4
- Alignment Length 18
- Location of Alignment in SEQ ID NO 110: from 86 to 103
  
- Alignment No. 2146
- gi No. 84451
- % Identity 95.1
- Alignment Length 102
- Location of Alignment in SEQ ID NO 110: from 2 to 103
  
- Alignment No. 2147
- gi No. 85325
- % Identity 100
- Alignment Length 35
- Location of Alignment in SEQ ID NO 110: from 1 to 35
  
- Alignment No. 2148
- gi No. 886740
- % Identity 97.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103
  
- Alignment No. 2149
- gi No. 90626
- % Identity 97.1
- Alignment Length 103
- Location of Alignment in SEQ ID NO 110: from 1 to 103

Maximum Length Sequence corresponding to clone ID 15580

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 111
- Ceres seq\_id 1497993

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 112
- Ceres seq\_id 1497994
- Location of start within SEQ ID NO 111: at 313 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2150
- Zinc finger, C3HC4 type (RING finger)
- Location within SEQ ID NO 112: from 90 to 131 aa.

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 113
- Ceres seq\_id 1497995
- Location of start within SEQ ID NO 111: at 316 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2151
- Zinc finger, C3HC4 type (RING finger)

- Location within SEQ ID NO 113: from 89 to 130 aa.

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 114
- Ceres seq\_id 1497996
- Location of start within SEQ ID NO 111: at 355 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2152
- Zinc finger, C3HC4 type (RING finger)
- Location within SEQ ID NO 114: from 76 to 117 aa.

(D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 15667

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 115
- Ceres seq\_id 1497997

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 116
- Ceres seq\_id 1497998
- Location of start within SEQ ID NO 115: at 350 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2153
- ADP-ribosylation factor family
- Location within SEQ ID NO 116: from 1 to 61 aa.

- Alignment No. 2154
- Ras family
- Location within SEQ ID NO 116: from 1 to 95 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2155
- gi No. 1381676
- % Identity 76.6
- Alignment Length 141
- Location of Alignment in SEQ ID NO 116: from 1 to 94
- Alignment No. 2156
- gi No. 2129606
- % Identity 80.3
- Alignment Length 142
- Location of Alignment in SEQ ID NO 116: from 1 to 95
- Alignment No. 2157
- gi No. 3024500
- % Identity 76.1
- Alignment Length 142
- Location of Alignment in SEQ ID NO 116: from 1 to 95
- Alignment No. 2158
- gi No. 3024503
- % Identity 72.5
- Alignment Length 142
- Location of Alignment in SEQ ID NO 116: from 1 to 95

- Alignment No. 2159
- gi No. 3024505
- % Identity 73.2
- Alignment Length 142
- Location of Alignment in SEQ ID NO 116: from 1 to 95
  
- Alignment No. 2160
- gi No. 303738
- % Identity 76.8
- Alignment Length 142
- Location of Alignment in SEQ ID NO 116: from 1 to 95
  
- Alignment No. 2161
- gi No. 4490750
- % Identity 80.3
- Alignment Length 142
- Location of Alignment in SEQ ID NO 116: from 1 to 95
  
- Alignment No. 2162
- gi No. 4544452
- % Identity 100
- Alignment Length 123
- Location of Alignment in SEQ ID NO 116: from 1 to 115

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 117
- Ceres seq\_id 1497999
- Location of start within SEQ ID NO 115: at 365 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2163
- ADP-ribosylation factor family
- Location within SEQ ID NO 117: from 1 to 56 aa.
  
- Alignment No. 2164
- Ras family
- Location within SEQ ID NO 117: from 1 to 90 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2165
- gi No. 1381676
- % Identity 76.6
- Alignment Length 141
- Location of Alignment in SEQ ID NO 117: from 1 to 89
  
- Alignment No. 2166
- gi No. 2129606
- % Identity 80.3
- Alignment Length 142
- Location of Alignment in SEQ ID NO 117: from 1 to 90
  
- Alignment No. 2167
- gi No. 3024500
- % Identity 76.1
- Alignment Length 142
- Location of Alignment in SEQ ID NO 117: from 1 to 90
  
- Alignment No. 2168
- gi No. 3024503
- % Identity 72.5

- Alignment Length 142
- Location of Alignment in SEQ ID NO 117: from 1 to 90
- Alignment No. 2169
- gi No. 3024505
- % Identity 73.2
- Alignment Length 142
- Location of Alignment in SEQ ID NO 117: from 1 to 90
- Alignment No. 2170
- gi No. 303738
- % Identity 76.8
- Alignment Length 142
- Location of Alignment in SEQ ID NO 117: from 1 to 90
- Alignment No. 2171
- gi No. 4490750
- % Identity 80.3
- Alignment Length 142
- Location of Alignment in SEQ ID NO 117: from 1 to 90
- Alignment No. 2172
- gi No. 4544452
- % Identity 100
- Alignment Length 123
- Location of Alignment in SEQ ID NO 117: from 1 to 110

Maximum Length Sequence corresponding to clone ID 15782

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 118
- Ceres seq\_id 1498000

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 119
- Ceres seq\_id 1498001
- Location of start within SEQ ID NO 118: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2173
- AMP-binding enzyme
- Location within SEQ ID NO 119: from 1 to 252 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2174
- gi No. 4587615
- % Identity 74.8
- Alignment Length 361
- Location of Alignment in SEQ ID NO 119: from 1 to 361

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 120
- Ceres seq\_id 1498002
- Location of start within SEQ ID NO 118: at 48 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2175
- AMP-binding enzyme
- Location within SEQ ID NO 120: from 1 to 237 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2176
- gi No. 4587615
- % Identity 74.8
- Alignment Length 361
- Location of Alignment in SEQ ID NO 120: from 1 to 346

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 121
- Ceres seq\_id 1498003
- Location of start within SEQ ID NO 118: at 495 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2177
- AMP-binding enzyme
- Location within SEQ ID NO 121: from 1 to 88 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2178
- gi No. 4587615
- % Identity 74.8
- Alignment Length 361
- Location of Alignment in SEQ ID NO 121: from 1 to 197

Maximum Length Sequence corresponding to clone ID 17663

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 122
- Ceres seq\_id 1498006

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 123
- Ceres seq\_id 1498007
- Location of start within SEQ ID NO 122: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2179
- Peptidyl-prolyl cis-trans isomerase
- Location within SEQ ID NO 123: from 27 to 194 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2180
- gi No. 1045518
- % Identity 70.7
- Alignment Length 150
- Location of Alignment in SEQ ID NO 123: from 44 to 193
  
- Alignment No. 2181
- gi No. 1076366
- % Identity 100
- Alignment Length 172
- Location of Alignment in SEQ ID NO 123: from 23 to 194
  
- Alignment No. 2182
- gi No. 1076367
- % Identity 78
- Alignment Length 173
- Location of Alignment in SEQ ID NO 123: from 23 to 194
  
- Alignment No. 2183
- gi No. 1076510
- % Identity 80.8

- Alignment Length 172
- Location of Alignment in SEQ ID NO 123: from 23 to 194
  
- Alignment No. 2184
- gi No. 1084454
- % Identity 70
- Alignment Length 170
- Location of Alignment in SEQ ID NO 123: from 25 to 194
  
- Alignment No. 2185
- gi No. 1084455
- % Identity 76.2
- Alignment Length 172
- Location of Alignment in SEQ ID NO 123: from 23 to 194
  
- Alignment No. 2186
- gi No. 118098
- % Identity 70.8
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193
  
- Alignment No. 2187
- gi No. 118099
- % Identity 70.8
- Alignment Length 168
- Location of Alignment in SEQ ID NO 123: from 26 to 193
  
- Alignment No. 2188
- gi No. 118102
- % Identity 70.2
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193
  
- Alignment No. 2189
- gi No. 118103
- % Identity 78.9
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193
  
- Alignment No. 2190
- gi No. 118104
- % Identity 75.6
- Alignment Length 172
- Location of Alignment in SEQ ID NO 123: from 23 to 194
  
- Alignment No. 2191
- gi No. 118107
- % Identity 70.2
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193
  
- Alignment No. 2192
- gi No. 1345921
- % Identity 78.4
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193
  
- Alignment No. 2193
- gi No. 1431788
- % Identity 70.4
- Alignment Length 169



- Location of Alignment in SEQ ID NO 123: from 25 to 193
- Alignment No. 2194
- gi No. 1480461
- % Identity 71.3
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193
- Alignment No. 2195
- gi No. 1480463
- % Identity 73.1
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193
- Alignment No. 2196
- gi No. 1480465
- % Identity 74.3
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193
- Alignment No. 2197
- gi No. 1561575
- % Identity 80.7
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193
- Alignment No. 2198
- gi No. 1563719
- % Identity 81.9
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193
- Alignment No. 2199
- gi No. 1633054
- % Identity 70.4
- Alignment Length 169
- Location of Alignment in SEQ ID NO 123: from 25 to 193
- Alignment No. 2200
- gi No. 167138
- % Identity 78.6
- Alignment Length 168
- Location of Alignment in SEQ ID NO 123: from 26 to 193
- Alignment No. 2201
- gi No. 1703696
- % Identity 70.8
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193
- Alignment No. 2202
- gi No. 1706248
- % Identity 71.9
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193
- Alignment No. 2203
- gi No. 1706253
- % Identity 71.9
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193

- Alignment No. 2204
- gi No. 1928939
- % Identity 79.1
- Alignment Length 172
- Location of Alignment in SEQ ID NO 123: from 23 to 193
  
- Alignment No. 2205
- gi No. 2129568
- % Identity 73.8
- Alignment Length 172
- Location of Alignment in SEQ ID NO 123: from 23 to 194
  
- Alignment No. 2206
- gi No. 2129569
- % Identity 80.7
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 24 to 194
  
- Alignment No. 2207
- gi No. 227879
- % Identity 70.4
- Alignment Length 169
- Location of Alignment in SEQ ID NO 123: from 25 to 193
  
- Alignment No. 2208
- gi No. 2443757
- % Identity 77.2
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 24 to 194
  
- Alignment No. 2209
- gi No. 2655157
- % Identity 73.1
- Alignment Length 160
- Location of Alignment in SEQ ID NO 123: from 26 to 185
  
- Alignment No. 2210
- gi No. 2655159
- % Identity 73.1
- Alignment Length 160
- Location of Alignment in SEQ ID NO 123: from 26 to 185
  
- Alignment No. 2211
- gi No. 2760537
- % Identity 79.1
- Alignment Length 172
- Location of Alignment in SEQ ID NO 123: from 23 to 194
  
- Alignment No. 2212
- gi No. 2959712
- % Identity 72.7
- Alignment Length 172
- Location of Alignment in SEQ ID NO 123: from 23 to 194
  
- Alignment No. 2213
- gi No. 3044089
- % Identity 74.1
- Alignment Length 112
- Location of Alignment in SEQ ID NO 123: from 83 to 194

- Alignment No. 2214
- gi No. 3063396
- % Identity 80.7
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193
  
- Alignment No. 2215
- gi No. 3334157
- % Identity 83.7
- Alignment Length 172
- Location of Alignment in SEQ ID NO 123: from 23 to 194
  
- Alignment No. 2216
- gi No. 3881310
- % Identity 71.9
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193
  
- Alignment No. 2217
- gi No. 443954
- % Identity 78.2
- Alignment Length 55
- Location of Alignment in SEQ ID NO 123: from 125 to 179
  
- Alignment No. 2218
- gi No. 4559302
- % Identity 80.7
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193
  
- Alignment No. 2219
- gi No. 4589980
- % Identity 81.5
- Alignment Length 146
- Location of Alignment in SEQ ID NO 123: from 24 to 169
  
- Alignment No. 2220
- gi No. 461902
- % Identity 83.4
- Alignment Length 151
- Location of Alignment in SEQ ID NO 123: from 44 to 194
  
- Alignment No. 2221
- gi No. 461903
- % Identity 78.5
- Alignment Length 172
- Location of Alignment in SEQ ID NO 123: from 23 to 194
  
- Alignment No. 2222
- gi No. 4803930
- % Identity 77.8
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 24 to 194
  
- Alignment No. 2223
- gi No. 600769
- % Identity 75.6
- Alignment Length 172
- Location of Alignment in SEQ ID NO 123: from 23 to 194
  
- Alignment No. 2224

- gi No. 629679
- % Identity 76.4
- Alignment Length 55
- Location of Alignment in SEQ ID NO 123: from 125 to 179
  
- Alignment No. 2225
- gi No. 68406
- % Identity 78.4
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193
  
- Alignment No. 2226
- gi No. 68407
- % Identity 78.9
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193
  
- Alignment No. 2227
- gi No. 939726
- % Identity 73.7
- Alignment Length 171
- Location of Alignment in SEQ ID NO 123: from 23 to 193

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 124
- Ceres seq\_id 1498008
- Location of start within SEQ ID NO 122: at 67 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2228
- Peptidyl-prolyl cis-trans isomerase
- Location within SEQ ID NO 124: from 5 to 172 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2229
- gi No. 1045518
- % Identity 70.7
- Alignment Length 150
- Location of Alignment in SEQ ID NO 124: from 22 to 171
  
- Alignment No. 2230
- gi No. 1076366
- % Identity 100
- Alignment Length 172
- Location of Alignment in SEQ ID NO 124: from 1 to 172
  
- Alignment No. 2231
- gi No. 1076367
- % Identity 78
- Alignment Length 173
- Location of Alignment in SEQ ID NO 124: from 1 to 172
  
- Alignment No. 2232
- gi No. 1076510
- % Identity 80.8
- Alignment Length 172
- Location of Alignment in SEQ ID NO 124: from 1 to 172
  
- Alignment No. 2233
- gi No. 1084454

- % Identity 70
- Alignment Length 170
- Location of Alignment in SEQ ID NO 124: from 3 to 172
  
- Alignment No. 2234
- gi No. 1084455
- % Identity 76.2
- Alignment Length 172
- Location of Alignment in SEQ ID NO 124: from 1 to 172
  
- Alignment No. 2235
- gi No. 118098
- % Identity 70.8
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171
  
- Alignment No. 2236
- gi No. 118099
- % Identity 70.8
- Alignment Length 168
- Location of Alignment in SEQ ID NO 124: from 4 to 171
  
- Alignment No. 2237
- gi No. 118102
- % Identity 70.2
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171
  
- Alignment No. 2238
- gi No. 118103
- % Identity 78.9
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171
  
- Alignment No. 2239
- gi No. 118104
- % Identity 75.6
- Alignment Length 172
- Location of Alignment in SEQ ID NO 124: from 1 to 172
  
- Alignment No. 2240
- gi No. 118107
- % Identity 70.2
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171
  
- Alignment No. 2241
- gi No. 1345921
- % Identity 78.4
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171
  
- Alignment No. 2242
- gi No. 1431788
- % Identity 70.4
- Alignment Length 169
- Location of Alignment in SEQ ID NO 124: from 3 to 171
  
- Alignment No. 2243
- gi No. 1480461
- % Identity 71.3

- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171
- Alignment No. 2244
- gi No. 1480463
- % Identity 73.1
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171
- Alignment No. 2245
- gi No. 1480465
- % Identity 74.3
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171
- Alignment No. 2246
- gi No. 1561575
- % Identity 80.7
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171
- Alignment No. 2247
- gi No. 1563719
- % Identity 81.9
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171
- Alignment No. 2248
- gi No. 1633054
- % Identity 70.4
- Alignment Length 169
- Location of Alignment in SEQ ID NO 124: from 3 to 171
- Alignment No. 2249
- gi No. 167138
- % Identity 78.6
- Alignment Length 168
- Location of Alignment in SEQ ID NO 124: from 4 to 171
- Alignment No. 2250
- gi No. 1703696
- % Identity 70.8
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171
- Alignment No. 2251
- gi No. 1706248
- % Identity 71.9
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171
- Alignment No. 2252
- gi No. 1706253
- % Identity 71.9
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171
- Alignment No. 2253
- gi No. 1928939
- % Identity 79.1
- Alignment Length 172

- Location of Alignment in SEQ ID NO 124: from 1 to 171
- Alignment No. 2254
- gi No. 2129568
- % Identity 73.8
- Alignment Length 172
- Location of Alignment in SEQ ID NO 124: from 1 to 172
- Alignment No. 2255
- gi No. 2129569
- % Identity 80.7
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 2 to 172
- Alignment No. 2256
- gi No. 227879
- % Identity 70.4
- Alignment Length 169
- Location of Alignment in SEQ ID NO 124: from 3 to 171
- Alignment No. 2257
- gi No. 2443757
- % Identity 77.2
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 2 to 172
- Alignment No. 2258
- gi No. 2655157
- % Identity 73.1
- Alignment Length 160
- Location of Alignment in SEQ ID NO 124: from 4 to 163
- Alignment No. 2259
- gi No. 2655159
- % Identity 73.1
- Alignment Length 160
- Location of Alignment in SEQ ID NO 124: from 4 to 163
- Alignment No. 2260
- gi No. 2760537
- % Identity 79.1
- Alignment Length 172
- Location of Alignment in SEQ ID NO 124: from 1 to 172
- Alignment No. 2261
- gi No. 2959712
- % Identity 72.7
- Alignment Length 172
- Location of Alignment in SEQ ID NO 124: from 1 to 172
- Alignment No. 2262
- gi No. 3044089
- % Identity 74.1
- Alignment Length 112
- Location of Alignment in SEQ ID NO 124: from 61 to 172
- Alignment No. 2263
- gi No. 3063396
- % Identity 80.7
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171

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- Alignment No. 2264
- gi No. 3334157
- % Identity 83.7
- Alignment Length 172
- Location of Alignment in SEQ ID NO 124: from 1 to 172
  
- Alignment No. 2265
- gi No. 3881310
- % Identity 71.9
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171
  
- Alignment No. 2266
- gi No. 443954
- % Identity 78.2
- Alignment Length 55
- Location of Alignment in SEQ ID NO 124: from 103 to 157
  
- Alignment No. 2267
- gi No. 4559302
- % Identity 80.7
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171
  
- Alignment No. 2268
- gi No. 4589980
- % Identity 81.5
- Alignment Length 146
- Location of Alignment in SEQ ID NO 124: from 2 to 147
  
- Alignment No. 2269
- gi No. 461902
- % Identity 83.4
- Alignment Length 151
- Location of Alignment in SEQ ID NO 124: from 22 to 172
  
- Alignment No. 2270
- gi No. 461903
- % Identity 78.5
- Alignment Length 172
- Location of Alignment in SEQ ID NO 124: from 1 to 172
  
- Alignment No. 2271
- gi No. 4803930
- % Identity 77.8
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 2 to 172
  
- Alignment No. 2272
- gi No. 600769
- % Identity 75.6
- Alignment Length 172
- Location of Alignment in SEQ ID NO 124: from 1 to 172
  
- Alignment No. 2273
- gi No. 629679
- % Identity 76.4
- Alignment Length 55
- Location of Alignment in SEQ ID NO 124: from 103 to 157



- Alignment No. 2274
- gi No. 68406
- % Identity 78.4
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171
  
- Alignment No. 2275
- gi No. 68407
- % Identity 78.9
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171
  
- Alignment No. 2276
- gi No. 939726
- % Identity 73.7
- Alignment Length 171
- Location of Alignment in SEQ ID NO 124: from 1 to 171

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 125
- Ceres seq\_id 1498009
- Location of start within SEQ ID NO 122: at 94 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2277
- Peptidyl-prolyl cis-trans isomerase
- Location within SEQ ID NO 125: from 1 to 163 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2278
- gi No. 1045518
- % Identity 70.7
- Alignment Length 150
- Location of Alignment in SEQ ID NO 125: from 13 to 162
  
- Alignment No. 2279
- gi No. 1076366
- % Identity 100
- Alignment Length 172
- Location of Alignment in SEQ ID NO 125: from 1 to 163
  
- Alignment No. 2280
- gi No. 1076367
- % Identity 78
- Alignment Length 173
- Location of Alignment in SEQ ID NO 125: from 1 to 163
  
- Alignment No. 2281
- gi No. 1076510
- % Identity 80.8
- Alignment Length 172
- Location of Alignment in SEQ ID NO 125: from 1 to 163
  
- Alignment No. 2282
- gi No. 1084454
- % Identity 70
- Alignment Length 170
- Location of Alignment in SEQ ID NO 125: from 1 to 163
  
- Alignment No. 2283

- gi No. 1084455
- % Identity 76.2
- Alignment Length 172
- Location of Alignment in SEQ ID NO 125: from 1 to 163
  
- Alignment No. 2284
- gi No. 118098
- % Identity 70.8
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2285
- gi No. 118099
- % Identity 70.8
- Alignment Length 168
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2286
- gi No. 118102
- % Identity 70.2
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2287
- gi No. 118103
- % Identity 78.9
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2288
- gi No. 118104
- % Identity 75.6
- Alignment Length 172
- Location of Alignment in SEQ ID NO 125: from 1 to 163
  
- Alignment No. 2289
- gi No. 118107
- % Identity 70.2
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2290
- gi No. 1345921
- % Identity 78.4
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2291
- gi No. 1431788
- % Identity 70.4
- Alignment Length 169
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2292
- gi No. 1480461
- % Identity 71.3
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2293
- gi No. 1480463

- % Identity 73.1
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2294
- gi No. 1480465
- % Identity 74.3
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2295
- gi No. 1561575
- % Identity 80.7
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2296
- gi No. 1563719
- % Identity 81.9
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2297
- gi No. 1633054
- % Identity 70.4
- Alignment Length 169
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2298
- gi No. 167138
- % Identity 78.6
- Alignment Length 168
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2299
- gi No. 1703696
- % Identity 70.8
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2300
- gi No. 1706248
- % Identity 71.9
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2301
- gi No. 1706253
- % Identity 71.9
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2302
- gi No. 1928939
- % Identity 79.1
- Alignment Length 172
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2303
- gi No. 2129568
- % Identity 73.8

- Alignment Length 172
- Location of Alignment in SEQ ID NO 125: from 1 to 163
  
- Alignment No. 2304
- gi No. 2129569
- % Identity 80.7
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 163
  
- Alignment No. 2305
- gi No. 227879
- % Identity 70.4
- Alignment Length 169
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2306
- gi No. 2443757
- % Identity 77.2
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 163
  
- Alignment No. 2307
- gi No. 2655157
- % Identity 73.1
- Alignment Length 160
- Location of Alignment in SEQ ID NO 125: from 1 to 154
  
- Alignment No. 2308
- gi No. 2655159
- % Identity 73.1
- Alignment Length 160
- Location of Alignment in SEQ ID NO 125: from 1 to 154
  
- Alignment No. 2309
- gi No. 2760537
- % Identity 79.1
- Alignment Length 172
- Location of Alignment in SEQ ID NO 125: from 1 to 163
  
- Alignment No. 2310
- gi No. 2959712
- % Identity 72.7
- Alignment Length 172
- Location of Alignment in SEQ ID NO 125: from 1 to 163
  
- Alignment No. 2311
- gi No. 3044089
- % Identity 74.1
- Alignment Length 112
- Location of Alignment in SEQ ID NO 125: from 52 to 163
  
- Alignment No. 2312
- gi No. 3063396
- % Identity 80.7
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2313
- gi No. 3334157
- % Identity 83.7
- Alignment Length 172

- Location of Alignment in SEQ ID NO 125: from 1 to 163
- Alignment No. 2314
- gi No. 3881310
- % Identity 71.9
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162
- Alignment No. 2315
- gi No. 443954
- % Identity 78.2
- Alignment Length 55
- Location of Alignment in SEQ ID NO 125: from 94 to 148
- Alignment No. 2316
- gi No. 4559302
- % Identity 80.7
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162
- Alignment No. 2317
- gi No. 4589980
- % Identity 81.5
- Alignment Length 146
- Location of Alignment in SEQ ID NO 125: from 1 to 138
- Alignment No. 2318
- gi No. 461902
- % Identity 83.4
- Alignment Length 151
- Location of Alignment in SEQ ID NO 125: from 13 to 163
- Alignment No. 2319
- gi No. 461903
- % Identity 78.5
- Alignment Length 172
- Location of Alignment in SEQ ID NO 125: from 1 to 163
- Alignment No. 2320
- gi No. 4803930
- % Identity 77.8
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 163
- Alignment No. 2321
- gi No. 600769
- % Identity 75.6
- Alignment Length 172
- Location of Alignment in SEQ ID NO 125: from 1 to 163
- Alignment No. 2322
- gi No. 629679
- % Identity 76.4
- Alignment Length 55
- Location of Alignment in SEQ ID NO 125: from 94 to 148
- Alignment No. 2323
- gi No. 68406
- % Identity 78.4
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162

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- Alignment No. 2324
- gi No. 68407
- % Identity 78.9
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162
  
- Alignment No. 2325
- gi No. 939726
- % Identity 73.7
- Alignment Length 171
- Location of Alignment in SEQ ID NO 125: from 1 to 162

Maximum Length Sequence corresponding to clone ID 17690

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 126
- Ceres seq\_id 1498010

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 127
- Ceres seq\_id 1498011
- Location of start within SEQ ID NO 126: at 67 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2326
- Eukaryotic-type carbonic anhydrase
- Location within SEQ ID NO 127: from 109 to 339 aa.
  
- Alignment No. 2327
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 127: from 26 to 79 aa.
  
- Alignment No. 2328
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 127: from 28 to 83 aa.
  
- Alignment No. 2329
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 127: from 33 to 85 aa.
  
- Alignment No. 2330
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 127: from 44 to 100 aa.
  
- Alignment No. 2331
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 127: from 44 to 101 aa.
  
- Alignment No. 2332
- 7 transmembrane receptor (rhodopsin family)
- Location within SEQ ID NO 127: from 22 to 108 aa.
  
- Alignment No. 2333
- 7 transmembrane receptor (rhodopsin family)
- Location within SEQ ID NO 127: from 23 to 85 aa.
  
- Alignment No. 2334
- 7 transmembrane receptor (rhodopsin family)
- Location within SEQ ID NO 127: from 23 to 99 aa.
  
- Alignment No. 2335

- 7 transmembrane receptor (rhodopsin family)
- Location within SEQ ID NO 127: from 25 to 91 aa.
- Alignment No. 2336
- 7 transmembrane receptor (rhodopsin family)
- Location within SEQ ID NO 127: from 25 to 97 aa.
- Alignment No. 2337
- 7 transmembrane receptor (rhodopsin family)
- Location within SEQ ID NO 127: from 25 to 108 aa.
- Alignment No. 2338
- 7 transmembrane receptor (rhodopsin family)
- Location within SEQ ID NO 127: from 29 to 97 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2339
- gi No. 1131489
- % Identity 72.3
- Alignment Length 83
- Location of Alignment in SEQ ID NO 127: from 24 to 99
- Alignment No. 2340
- gi No. 1131489
- % Identity 72.3
- Alignment Length 83
- Location of Alignment in SEQ ID NO 127: from 24 to 99
- Alignment No. 2341
- gi No. 1181409
- % Identity 75
- Alignment Length 28
- Location of Alignment in SEQ ID NO 127: from 24 to 47
- Alignment No. 2342
- gi No. 1181409
- % Identity 70.9
- Alignment Length 79
- Location of Alignment in SEQ ID NO 127: from 24 to 97
- Alignment No. 2343
- gi No. 1181409
- % Identity 71.1
- Alignment Length 83
- Location of Alignment in SEQ ID NO 127: from 24 to 99
- Alignment No. 2344
- gi No. 1181479
- % Identity 70.9
- Alignment Length 80
- Location of Alignment in SEQ ID NO 127: from 24 to 99
- Alignment No. 2345
- gi No. 1181479
- % Identity 70.5
- Alignment Length 80
- Location of Alignment in SEQ ID NO 127: from 23 to 99
- Alignment No. 2346
- gi No. 1536820
- % Identity 71.1

- Alignment Length 38
- Location of Alignment in SEQ ID NO 127: from 24 to 58
  
- Alignment No. 2347
- gi No. 1536820
- % Identity 70
- Alignment Length 50
- Location of Alignment in SEQ ID NO 127: from 24 to 69
  
- Alignment No. 2348
- gi No. 1536820
- % Identity 71.8
- Alignment Length 79
- Location of Alignment in SEQ ID NO 127: from 24 to 98
  
- Alignment No. 2349
- gi No. 1620077
- % Identity 72.3
- Alignment Length 83
- Location of Alignment in SEQ ID NO 127: from 24 to 99
  
- Alignment No. 2350
- gi No. 1620077
- % Identity 72.3
- Alignment Length 83
- Location of Alignment in SEQ ID NO 127: from 24 to 99
  
- Alignment No. 2351
- gi No. 1620077
- % Identity 72.3
- Alignment Length 83
- Location of Alignment in SEQ ID NO 127: from 24 to 99
  
- Alignment No. 2352
- gi No. 1620077
- % Identity 72.3
- Alignment Length 83
- Location of Alignment in SEQ ID NO 127: from 24 to 99
  
- Alignment No. 2353
- gi No. 1620077
- % Identity 72.3
- Alignment Length 83
- Location of Alignment in SEQ ID NO 127: from 24 to 99
  
- Alignment No. 2354
- gi No. 1620077
- % Identity 70.6
- Alignment Length 85
- Location of Alignment in SEQ ID NO 127: from 24 to 101
  
- Alignment No. 2355
- gi No. 4220450
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 127: from 78 to 99
  
- Alignment No. 2356
- gi No. 5360792
- % Identity 72.7
- Alignment Length 22



- Location of Alignment in SEQ ID NO 127: from 78 to 99

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 128
- Ceres seq\_id 1498012
- Location of start within SEQ ID NO 126: at 457 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2357
- Eukaryotic-type carbonic anhydrase
- Location within SEQ ID NO 128: from 1 to 209 aa.

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 129
- Ceres seq\_id 1498013
- Location of start within SEQ ID NO 126: at 475 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2358
- Eukaryotic-type carbonic anhydrase
- Location within SEQ ID NO 129: from 1 to 203 aa.

(D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 18447

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 130
- Ceres seq\_id 1498018

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 131
- Ceres seq\_id 1498019
- Location of start within SEQ ID NO 130: at 194 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2359
- gi No. 2288982
- % Identity 100
- Alignment Length 123
- Location of Alignment in SEQ ID NO 131: from 1 to 123
- Alignment No. 2360
- gi No. 3763940
- % Identity 100
- Alignment Length 120
- Location of Alignment in SEQ ID NO 131: from 1 to 120

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 132
- Ceres seq\_id 1498020
- Location of start within SEQ ID NO 130: at 661 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2361

- gi No. 3915824
- % Identity 97.6
- Alignment Length 85
- Location of Alignment in SEQ ID NO 132: from 11 to 95

Maximum Length Sequence corresponding to clone ID 20349

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 133
- Ceres seq\_id 1498028

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 134
- Ceres seq\_id 1498029
- Location of start within SEQ ID NO 133: at 137 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2362
- gi No. 3851670
- % Identity 87.9
- Alignment Length 33
- Location of Alignment in SEQ ID NO 134: from 54 to 82

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 135
- Ceres seq\_id 1498030
- Location of start within SEQ ID NO 133: at 251 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2363
- gi No. 3851670
- % Identity 87.9
- Alignment Length 33
- Location of Alignment in SEQ ID NO 135: from 16 to 44

Maximum Length Sequence corresponding to clone ID 20856

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 136
- Ceres seq\_id 1498033

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 137
- Ceres seq\_id 1498034
- Location of start within SEQ ID NO 136: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2364
- gi No. 1055368
- % Identity 72.1
- Alignment Length 69
- Location of Alignment in SEQ ID NO 137: from 167 to 232
- Alignment No. 2365
- gi No. 1079736
- % Identity 72.1
- Alignment Length 69
- Location of Alignment in SEQ ID NO 137: from 167 to 232

- Alignment No. 2366
- gi No. 132074
- % Identity 80.6
- Alignment Length 67
- Location of Alignment in SEQ ID NO 137: from 169 to 233
  
- Alignment No. 2367
- gi No. 132082
- % Identity 70.6
- Alignment Length 34
- Location of Alignment in SEQ ID NO 137: from 202 to 233
  
- Alignment No. 2368
- gi No. 132086
- % Identity 73.5
- Alignment Length 69
- Location of Alignment in SEQ ID NO 137: from 167 to 232
  
- Alignment No. 2369
- gi No. 132090
- % Identity 88.9
- Alignment Length 72
- Location of Alignment in SEQ ID NO 137: from 168 to 237
  
- Alignment No. 2370
- gi No. 132091
- % Identity 84.7
- Alignment Length 72
- Location of Alignment in SEQ ID NO 137: from 168 to 237
  
- Alignment No. 2371
- gi No. 132098
- % Identity 70.6
- Alignment Length 68
- Location of Alignment in SEQ ID NO 137: from 168 to 233
  
- Alignment No. 2372
- gi No. 132102
- % Identity 87.5
- Alignment Length 72
- Location of Alignment in SEQ ID NO 137: from 168 to 237
  
- Alignment No. 2373
- gi No. 132110
- % Identity 83.3
- Alignment Length 72
- Location of Alignment in SEQ ID NO 137: from 168 to 237
  
- Alignment No. 2374
- gi No. 132113
- % Identity 70.6
- Alignment Length 69
- Location of Alignment in SEQ ID NO 137: from 167 to 232
  
- Alignment No. 2375
- gi No. 132154
- % Identity 79.2
- Alignment Length 72
- Location of Alignment in SEQ ID NO 137: from 168 to 237
  
- Alignment No. 2376

- gi No. 132161
- % Identity 71.4
- Alignment Length 64
- Location of Alignment in SEQ ID NO 137: from 172 to 233
  
- Alignment No. 2377
- gi No. 1352821
- % Identity 73.9
- Alignment Length 69
- Location of Alignment in SEQ ID NO 137: from 171 to 237
  
- Alignment No. 2378
- gi No. 167270
- % Identity 71
- Alignment Length 70
- Location of Alignment in SEQ ID NO 137: from 168 to 233
  
- Alignment No. 2379
- gi No. 169156
- % Identity 70.4
- Alignment Length 55
- Location of Alignment in SEQ ID NO 137: from 181 to 233
  
- Alignment No. 2380
- gi No. 170502
- % Identity 71.2
- Alignment Length 59
- Location of Alignment in SEQ ID NO 137: from 168 to 225
  
- Alignment No. 2381
- gi No. 19439
- % Identity 75
- Alignment Length 12
- Location of Alignment in SEQ ID NO 137: from 214 to 225
  
- Alignment No. 2382
- gi No. 266891
- % Identity 83.3
- Alignment Length 72
- Location of Alignment in SEQ ID NO 137: from 168 to 237
  
- Alignment No. 2383
- gi No. 295792
- % Identity 78.3
- Alignment Length 69
- Location of Alignment in SEQ ID NO 137: from 169 to 233
  
- Alignment No. 2384
- gi No. 3914601
- % Identity 75
- Alignment Length 64
- Location of Alignment in SEQ ID NO 137: from 172 to 233
  
- Alignment No. 2385
- gi No. 3914608
- % Identity 73.4
- Alignment Length 64
- Location of Alignment in SEQ ID NO 137: from 172 to 233
  
- Alignment No. 2386
- gi No. 3928152

- % Identity 76.8
- Alignment Length 57
- Location of Alignment in SEQ ID NO 137: from 179 to 233
  
- Alignment No. 2387
- gi No. 4204274
- % Identity 80.6
- Alignment Length 67
- Location of Alignment in SEQ ID NO 137: from 169 to 233
  
- Alignment No. 2388
- gi No. 480983
- % Identity 77.5
- Alignment Length 71
- Location of Alignment in SEQ ID NO 137: from 169 to 237
  
- Alignment No. 2389
- gi No. 5002363
- % Identity 70.1
- Alignment Length 68
- Location of Alignment in SEQ ID NO 137: from 168 to 233
  
- Alignment No. 2390
- gi No. 5002365
- % Identity 73.5
- Alignment Length 69
- Location of Alignment in SEQ ID NO 137: from 168 to 233
  
- Alignment No. 2391
- gi No. 5454190
- % Identity 97.9
- Alignment Length 142
- Location of Alignment in SEQ ID NO 137: from 31 to 172
  
- Alignment No. 2392
- gi No. 5454190
- % Identity 95.3
- Alignment Length 148
- Location of Alignment in SEQ ID NO 137: from 31 to 175
  
- Alignment No. 2393
- gi No. 553084
- % Identity 76.3
- Alignment Length 38
- Location of Alignment in SEQ ID NO 137: from 198 to 233
  
- Alignment No. 2394
- gi No. 58299
- % Identity 80.6
- Alignment Length 67
- Location of Alignment in SEQ ID NO 137: from 169 to 233
  
- Alignment No. 2395
- gi No. 585787
- % Identity 71
- Alignment Length 70
- Location of Alignment in SEQ ID NO 137: from 168 to 233
  
- Alignment No. 2396
- gi No. 68064
- % Identity 79.2

- Alignment Length 72
- Location of Alignment in SEQ ID NO 137: from 168 to 237
- Alignment No. 2397
- gi No. 763070
- % Identity 72.9
- Alignment Length 48
- Location of Alignment in SEQ ID NO 137: from 168 to 215

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 138
- Ceres seq\_id 1498035
- Location of start within SEQ ID NO 136: at 92 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2398
- gi No. 1055368
- % Identity 72.1
- Alignment Length 69
- Location of Alignment in SEQ ID NO 138: from 137 to 202
- Alignment No. 2399
- gi No. 1079736
- % Identity 72.1
- Alignment Length 69
- Location of Alignment in SEQ ID NO 138: from 137 to 202
- Alignment No. 2400
- gi No. 132074
- % Identity 80.6
- Alignment Length 67
- Location of Alignment in SEQ ID NO 138: from 139 to 203
- Alignment No. 2401
- gi No. 132082
- % Identity 70.6
- Alignment Length 34
- Location of Alignment in SEQ ID NO 138: from 172 to 203
- Alignment No. 2402
- gi No. 132086
- % Identity 73.5
- Alignment Length 69
- Location of Alignment in SEQ ID NO 138: from 137 to 202
- Alignment No. 2403
- gi No. 132090
- % Identity 88.9
- Alignment Length 72
- Location of Alignment in SEQ ID NO 138: from 138 to 207
- Alignment No. 2404
- gi No. 132091
- % Identity 84.7
- Alignment Length 72
- Location of Alignment in SEQ ID NO 138: from 138 to 207
- Alignment No. 2405
- gi No. 132098

- % Identity 70.6
- Alignment Length 68
- Location of Alignment in SEQ ID NO 138: from 138 to 203
  
- Alignment No. 2406
- gi No. 132102
- % Identity 87.5
- Alignment Length 72
- Location of Alignment in SEQ ID NO 138: from 138 to 207
  
- Alignment No. 2407
- gi No. 132110
- % Identity 83.3
- Alignment Length 72
- Location of Alignment in SEQ ID NO 138: from 138 to 207
  
- Alignment No. 2408
- gi No. 132113
- % Identity 70.6
- Alignment Length 69
- Location of Alignment in SEQ ID NO 138: from 137 to 202
  
- Alignment No. 2409
- gi No. 132154
- % Identity 79.2
- Alignment Length 72
- Location of Alignment in SEQ ID NO 138: from 138 to 207
  
- Alignment No. 2410
- gi No. 132161
- % Identity 71.4
- Alignment Length 64
- Location of Alignment in SEQ ID NO 138: from 142 to 203
  
- Alignment No. 2411
- gi No. 1352821
- % Identity 73.9
- Alignment Length 69
- Location of Alignment in SEQ ID NO 138: from 141 to 207
  
- Alignment No. 2412
- gi No. 167270
- % Identity 71
- Alignment Length 70
- Location of Alignment in SEQ ID NO 138: from 138 to 203
  
- Alignment No. 2413
- gi No. 169156
- % Identity 70.4
- Alignment Length 55
- Location of Alignment in SEQ ID NO 138: from 151 to 203
  
- Alignment No. 2414
- gi No. 170502
- % Identity 71.2
- Alignment Length 59
- Location of Alignment in SEQ ID NO 138: from 138 to 195
  
- Alignment No. 2415
- gi No. 19439
- % Identity 75

- Alignment Length 12
- Location of Alignment in SEQ ID NO 138: from 184 to 195
  
- Alignment No. 2416
- gi No. 266891
- % Identity 83.3
- Alignment Length 72
- Location of Alignment in SEQ ID NO 138: from 138 to 207
  
- Alignment No. 2417
- gi No. 295792
- % Identity 78.3
- Alignment Length 69
- Location of Alignment in SEQ ID NO 138: from 139 to 203
  
- Alignment No. 2418
- gi No. 3914601
- % Identity 75
- Alignment Length 64
- Location of Alignment in SEQ ID NO 138: from 142 to 203
  
- Alignment No. 2419
- gi No. 3914608
- % Identity 73.4
- Alignment Length 64
- Location of Alignment in SEQ ID NO 138: from 142 to 203
  
- Alignment No. 2420
- gi No. 3928152
- % Identity 76.8
- Alignment Length 57
- Location of Alignment in SEQ ID NO 138: from 149 to 203
  
- Alignment No. 2421
- gi No. 4204274
- % Identity 80.6
- Alignment Length 67
- Location of Alignment in SEQ ID NO 138: from 139 to 203
  
- Alignment No. 2422
- gi No. 480983
- % Identity 77.5
- Alignment Length 71
- Location of Alignment in SEQ ID NO 138: from 139 to 207
  
- Alignment No. 2423
- gi No. 5002363
- % Identity 70.1
- Alignment Length 68
- Location of Alignment in SEQ ID NO 138: from 138 to 203
  
- Alignment No. 2424
- gi No. 5002365
- % Identity 73.5
- Alignment Length 69
- Location of Alignment in SEQ ID NO 138: from 138 to 203
  
- Alignment No. 2425
- gi No. 5454190
- % Identity 97.9
- Alignment Length 142



- Location of Alignment in SEQ ID NO 138: from 1 to 142
- Alignment No. 2426
- gi No. 5454190
- % Identity 95.3
- Alignment Length 148
- Location of Alignment in SEQ ID NO 138: from 1 to 145
- Alignment No. 2427
- gi No. 553084
- % Identity 76.3
- Alignment Length 38
- Location of Alignment in SEQ ID NO 138: from 168 to 203
- Alignment No. 2428
- gi No. 58299
- % Identity 80.6
- Alignment Length 67
- Location of Alignment in SEQ ID NO 138: from 139 to 203
- Alignment No. 2429
- gi No. 585787
- % Identity 71
- Alignment Length 70
- Location of Alignment in SEQ ID NO 138: from 138 to 203
- Alignment No. 2430
- gi No. 68064
- % Identity 79.2
- Alignment Length 72
- Location of Alignment in SEQ ID NO 138: from 138 to 207
- Alignment No. 2431
- gi No. 763070
- % Identity 72.9
- Alignment Length 48
- Location of Alignment in SEQ ID NO 138: from 138 to 185

Maximum Length Sequence corresponding to clone ID 21498

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 139
- Ceres seq\_id 1498036

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 140
- Ceres seq\_id 1498037
- Location of start within SEQ ID NO 139: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2432
- gi No. 1173045
- % Identity 97.5
- Alignment Length 40
- Location of Alignment in SEQ ID NO 140: from 61 to 99
- Alignment No. 2433
- gi No. 4090257
- % Identity 92.3
- Alignment Length 39
- Location of Alignment in SEQ ID NO 140: from 61 to 99

- Alignment No. 2434
- gi No. 4741896
- % Identity 92.1
- Alignment Length 38
- Location of Alignment in SEQ ID NO 140: from 61 to 98

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 141
- Ceres seq\_id 1498038
- Location of start within SEQ ID NO 139: at 58 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2435
- gi No. 1173045
- % Identity 80
- Alignment Length 56
- Location of Alignment in SEQ ID NO 141: from 1 to 55
  
- Alignment No. 2436
- gi No. 4090257
- % Identity 90
- Alignment Length 40
- Location of Alignment in SEQ ID NO 141: from 1 to 40
  
- Alignment No. 2437
- gi No. 4741896
- % Identity 92.5
- Alignment Length 40
- Location of Alignment in SEQ ID NO 141: from 1 to 40
  
- Alignment No. 2438
- gi No. 5007072
- % Identity 78.1
- Alignment Length 32
- Location of Alignment in SEQ ID NO 141: from 8 to 39

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 142
- Ceres seq\_id 1498039
- Location of start within SEQ ID NO 139: at 110 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2439
- gi No. 1173045
- % Identity 97.5
- Alignment Length 40
- Location of Alignment in SEQ ID NO 142: from 25 to 63
  
- Alignment No. 2440
- gi No. 4090257
- % Identity 92.3
- Alignment Length 39
- Location of Alignment in SEQ ID NO 142: from 25 to 63
  
- Alignment No. 2441
- gi No. 4741896

- % Identity 92.1
- Alignment Length 38
- Location of Alignment in SEQ ID NO 142: from 25 to 62

Maximum Length Sequence corresponding to clone ID 22221

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 143
- Ceres seq\_id 1498043

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 144
- Ceres seq\_id 1498044
- Location of start within SEQ ID NO 143: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2442
- Eukaryotic protein kinase domain
- Location within SEQ ID NO 144: from 386 to 632 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2443
- gi No. 4008006
- % Identity 76.1
- Alignment Length 644
- Location of Alignment in SEQ ID NO 144: from 30 to 667

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 145
- Ceres seq\_id 1498045
- Location of start within SEQ ID NO 143: at 66 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2444
- Eukaryotic protein kinase domain
- Location within SEQ ID NO 145: from 365 to 611 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2445
- gi No. 4008006
- % Identity 76.1
- Alignment Length 644
- Location of Alignment in SEQ ID NO 145: from 9 to 646

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 146
- Ceres seq\_id 1498046
- Location of start within SEQ ID NO 143: at 90 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2446
- Eukaryotic protein kinase domain
- Location within SEQ ID NO 146: from 357 to 603 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2447
- gi No. 4008006
- % Identity 76.1
- Alignment Length 644
- Location of Alignment in SEQ ID NO 146: from 1 to 638

Maximum Length Sequence corresponding to clone ID 22320

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 147
- Ceres seq\_id 1498047

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 148
- Ceres seq\_id 1498048
- Location of start within SEQ ID NO 147: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted  
Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2448
- gi No. 4662641
- % Identity 92.8
- Alignment Length 69
- Location of Alignment in SEQ ID NO 148: from 51 to 119
  
- Alignment No. 2449
- gi No. 4662641
- % Identity 95.8
- Alignment Length 72
- Location of Alignment in SEQ ID NO 148: from 51 to 122
  
- Alignment No. 2450
- gi No. 4662641
- % Identity 95.8
- Alignment Length 72
- Location of Alignment in SEQ ID NO 148: from 51 to 122
  
- Alignment No. 2451
- gi No. 4662641
- % Identity 76.9
- Alignment Length 78
- Location of Alignment in SEQ ID NO 148: from 51 to 120
  
- Alignment No. 2452
- gi No. 4662641
- % Identity 83.5
- Alignment Length 79
- Location of Alignment in SEQ ID NO 148: from 51 to 121
  
- Alignment No. 2453
- gi No. 4662641
- % Identity 70.9
- Alignment Length 81
- Location of Alignment in SEQ ID NO 148: from 51 to 121
  
- Alignment No. 2454
- gi No. 4662641
- % Identity 99.1
- Alignment Length 115
- Location of Alignment in SEQ ID NO 148: from 8 to 122
  
- Alignment No. 2455
- gi No. 4662641
- % Identity 91.2
- Alignment Length 125
- Location of Alignment in SEQ ID NO 148: from 8 to 122

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 149
- Ceres seq\_id 1498049
- Location of start within SEQ ID NO 147: at 22 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2456
- gi No. 4662641
- % Identity 92.8
- Alignment Length 69
- Location of Alignment in SEQ ID NO 149: from 44 to 112
  
- Alignment No. 2457
- gi No. 4662641
- % Identity 95.8
- Alignment Length 72
- Location of Alignment in SEQ ID NO 149: from 44 to 115
  
- Alignment No. 2458
- gi No. 4662641
- % Identity 95.8
- Alignment Length 72
- Location of Alignment in SEQ ID NO 149: from 44 to 115
  
- Alignment No. 2459
- gi No. 4662641
- % Identity 76.9
- Alignment Length 78
- Location of Alignment in SEQ ID NO 149: from 44 to 113
  
- Alignment No. 2460
- gi No. 4662641
- % Identity 83.5
- Alignment Length 79
- Location of Alignment in SEQ ID NO 149: from 44 to 114
  
- Alignment No. 2461
- gi No. 4662641
- % Identity 70.9
- Alignment Length 81
- Location of Alignment in SEQ ID NO 149: from 44 to 114
  
- Alignment No. 2462
- gi No. 4662641
- % Identity 99.1
- Alignment Length 115
- Location of Alignment in SEQ ID NO 149: from 1 to 115
  
- Alignment No. 2463
- gi No. 4662641
- % Identity 91.2
- Alignment Length 125
- Location of Alignment in SEQ ID NO 149: from 1 to 115

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 150
- Ceres seq\_id 1498050
- Location of start within SEQ ID NO 147: at 447 nt.

(C) Nomination and Annotation of Domains within Predicted  
Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2464
- gi No. 2924448
- % Identity 72.7
- Alignment Length 11
- Location of Alignment in SEQ ID NO 150: from 68 to 78
  
- Alignment No. 2465
- gi No. 401496
- % Identity 70.8
- Alignment Length 24
- Location of Alignment in SEQ ID NO 150: from 16 to 39

Maximum Length Sequence corresponding to clone ID 22752

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 151
- Ceres seq\_id 1498051

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 152
- Ceres seq\_id 1498052
- Location of start within SEQ ID NO 151: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted  
Polypeptide(s)

- Alignment No. 2466
- RNA recognition motif. (a.k.a. RRM, RBD, or RNP domain)
- Location within SEQ ID NO 152: from 128 to 198 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2467
- gi No. 100219
- % Identity 71
- Alignment Length 32
- Location of Alignment in SEQ ID NO 152: from 227 to 256
  
- Alignment No. 2468
- gi No. 1070352
- % Identity 84.2
- Alignment Length 19
- Location of Alignment in SEQ ID NO 152: from 237 to 254
  
- Alignment No. 2469
- gi No. 1280065
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 152: from 235 to 256
  
- Alignment No. 2470
- gi No. 1345532
- % Identity 73.3
- Alignment Length 30
- Location of Alignment in SEQ ID NO 152: from 230 to 256
  
- Alignment No. 2471
- gi No. 1345532
- % Identity 71
- Alignment Length 31
- Location of Alignment in SEQ ID NO 152: from 227 to 252

- Alignment No. 2472
- gi No. 2833647
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 152: from 59 to 74
  
- Alignment No. 2473
- gi No. 2833647
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 152: from 59 to 74
  
- Alignment No. 2474
- gi No. 2833649
- % Identity 73.3
- Alignment Length 16
- Location of Alignment in SEQ ID NO 152: from 60 to 74
  
- Alignment No. 2475
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 152: from 59 to 74
  
- Alignment No. 2476
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 152: from 59 to 74
  
- Alignment No. 2477
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 152: from 59 to 74
  
- Alignment No. 2478
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 152: from 59 to 74
  
- Alignment No. 2479
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 152: from 59 to 74
  
- Alignment No. 2480
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 152: from 59 to 74
  
- Alignment No. 2481
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 152: from 59 to 74
  
- Alignment No. 2482

- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 152: from 59 to 74
  
- Alignment No. 2483
- gi No. 3786481
- % Identity 70
- Alignment Length 30
- Location of Alignment in SEQ ID NO 152: from 226 to 254
  
- Alignment No. 2484
- gi No. 399783
- % Identity 73.3
- Alignment Length 30
- Location of Alignment in SEQ ID NO 152: from 230 to 256
  
- Alignment No. 2485
- gi No. 4808403
- % Identity 72.4
- Alignment Length 29
- Location of Alignment in SEQ ID NO 152: from 228 to 256
  
- Alignment No. 2486
- gi No. 544283
- % Identity 71
- Alignment Length 33
- Location of Alignment in SEQ ID NO 152: from 226 to 256
  
- Alignment No. 2487
- gi No. 544416
- % Identity 70
- Alignment Length 30
- Location of Alignment in SEQ ID NO 152: from 227 to 256
  
- Alignment No. 2488
- gi No. 642484
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 152: from 227 to 248
  
- Alignment No. 2489
- gi No. 929566
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 152: from 235 to 256

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 153
- Ceres seq\_id 1498053
- Location of start within SEQ ID NO 151: at 117 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2490
- RNA recognition motif. (a.k.a. RRM, RBD, or RNP domain)
- Location within SEQ ID NO 153: from 90 to 160 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2491
- gi No. 100219



- % Identity 71
- Alignment Length 32
- Location of Alignment in SEQ ID NO 153: from 189 to 218
  
- Alignment No. 2492
- gi No. 1070352
- % Identity 84.2
- Alignment Length 19
- Location of Alignment in SEQ ID NO 153: from 199 to 216
  
- Alignment No. 2493
- gi No. 1280065
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 153: from 197 to 218
  
- Alignment No. 2494
- gi No. 1345532
- % Identity 73.3
- Alignment Length 30
- Location of Alignment in SEQ ID NO 153: from 192 to 218
  
- Alignment No. 2495
- gi No. 1345532
- % Identity 71
- Alignment Length 31
- Location of Alignment in SEQ ID NO 153: from 189 to 214
  
- Alignment No. 2496
- gi No. 2833647
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 153: from 21 to 36
  
- Alignment No. 2497
- gi No. 2833647
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 153: from 21 to 36
  
- Alignment No. 2498
- gi No. 2833649
- % Identity 73.3
- Alignment Length 16
- Location of Alignment in SEQ ID NO 153: from 22 to 36
  
- Alignment No. 2499
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 153: from 21 to 36
  
- Alignment No. 2500
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 153: from 21 to 36
  
- Alignment No. 2501
- gi No. 2833649
- % Identity 75

- Alignment Length 17
- Location of Alignment in SEQ ID NO 153: from 21 to 36
  
- Alignment No. 2502
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 153: from 21 to 36
  
- Alignment No. 2503
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 153: from 21 to 36
  
- Alignment No. 2504
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 153: from 21 to 36
  
- Alignment No. 2505
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 153: from 21 to 36
  
- Alignment No. 2506
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 153: from 21 to 36
  
- Alignment No. 2507
- gi No. 3786481
- % Identity 70
- Alignment Length 30
- Location of Alignment in SEQ ID NO 153: from 188 to 216
  
- Alignment No. 2508
- gi No. 399783
- % Identity 73.3
- Alignment Length 30
- Location of Alignment in SEQ ID NO 153: from 192 to 218
  
- Alignment No. 2509
- gi No. 4808403
- % Identity 72.4
- Alignment Length 29
- Location of Alignment in SEQ ID NO 153: from 190 to 218
  
- Alignment No. 2510
- gi No. 544283
- % Identity 71
- Alignment Length 33
- Location of Alignment in SEQ ID NO 153: from 188 to 218
  
- Alignment No. 2511
- gi No. 544416
- % Identity 70
- Alignment Length 30

- Location of Alignment in SEQ ID NO 153: from 189 to 218
- Alignment No. 2512
- gi No. 642484
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 153: from 189 to 210
- Alignment No. 2513
- gi No. 929566
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 153: from 197 to 218

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 154
- Ceres seq\_id 1498054
- Location of start within SEQ ID NO 151: at 135 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2514
- RNA recognition motif. (a.k.a. RRM, RBD, or RNP domain)
- Location within SEQ ID NO 154: from 84 to 154 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2515
- gi No. 100219
- % Identity 71
- Alignment Length 32
- Location of Alignment in SEQ ID NO 154: from 183 to 212
- Alignment No. 2516
- gi No. 1070352
- % Identity 84.2
- Alignment Length 19
- Location of Alignment in SEQ ID NO 154: from 193 to 210
- Alignment No. 2517
- gi No. 1280065
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 154: from 191 to 212
- Alignment No. 2518
- gi No. 1345532
- % Identity 73.3
- Alignment Length 30
- Location of Alignment in SEQ ID NO 154: from 186 to 212
- Alignment No. 2519
- gi No. 1345532
- % Identity 71
- Alignment Length 31
- Location of Alignment in SEQ ID NO 154: from 183 to 208
- Alignment No. 2520
- gi No. 2833647
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 154: from 15 to 30

- Alignment No. 2521
- gi No. 2833647
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 154: from 15 to 30
  
- Alignment No. 2522
- gi No. 2833649
- % Identity 73.3
- Alignment Length 16
- Location of Alignment in SEQ ID NO 154: from 16 to 30
  
- Alignment No. 2523
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 154: from 15 to 30
  
- Alignment No. 2524
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 154: from 15 to 30
  
- Alignment No. 2525
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 154: from 15 to 30
  
- Alignment No. 2526
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 154: from 15 to 30
  
- Alignment No. 2527
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 154: from 15 to 30
  
- Alignment No. 2528
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 154: from 15 to 30
  
- Alignment No. 2529
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 154: from 15 to 30
  
- Alignment No. 2530
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 154: from 15 to 30

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- Alignment No. 2531
- gi No. 3786481
- % Identity 70
- Alignment Length 30
- Location of Alignment in SEQ ID NO 154: from 182 to 210
  
- Alignment No. 2532
- gi No. 399783
- % Identity 73.3
- Alignment Length 30
- Location of Alignment in SEQ ID NO 154: from 186 to 212
  
- Alignment No. 2533
- gi No. 4808403
- % Identity 72.4
- Alignment Length 29
- Location of Alignment in SEQ ID NO 154: from 184 to 212
  
- Alignment No. 2534
- gi No. 544283
- % Identity 71
- Alignment Length 33
- Location of Alignment in SEQ ID NO 154: from 182 to 212
  
- Alignment No. 2535
- gi No. 544416
- % Identity 70
- Alignment Length 30
- Location of Alignment in SEQ ID NO 154: from 183 to 212
  
- Alignment No. 2536
- gi No. 642484
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 154: from 183 to 204
  
- Alignment No. 2537
- gi No. 929566
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 154: from 191 to 212

Maximum Length Sequence corresponding to clone ID 23697

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 155
- Ceres seq\_id 1498061

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 156
- Ceres seq\_id 1498062
- Location of start within SEQ ID NO 155: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2538
- gi No. 4204277
- % Identity 99.1
- Alignment Length 117
- Location of Alignment in SEQ ID NO 156: from 2 to 118

Maximum Length Sequence corresponding to clone ID 24389

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 157
- Ceres seq\_id 1498063

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 158
- Ceres seq\_id 1498064
- Location of start within SEQ ID NO 157: at 123 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2539
- gi No. 2244872
- % Identity 88.7
- Alignment Length 168
- Location of Alignment in SEQ ID NO 158: from 1 to 134

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 159
- Ceres seq\_id 1498065
- Location of start within SEQ ID NO 157: at 306 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2540
- gi No. 2244872
- % Identity 88.7
- Alignment Length 168
- Location of Alignment in SEQ ID NO 159: from 1 to 73

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 160
- Ceres seq\_id 1498066
- Location of start within SEQ ID NO 157: at 312 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2541
- gi No. 2244872
- % Identity 88.7
- Alignment Length 168
- Location of Alignment in SEQ ID NO 160: from 1 to 71

Maximum Length Sequence corresponding to clone ID 24813

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 161
- Ceres seq\_id 1498067

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 162
- Ceres seq\_id 1498068
- Location of start within SEQ ID NO 161: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2542
- gi No. 2130028
- % Identity 75.4
- Alignment Length 65

- Location of Alignment in SEQ ID NO 162: from 24 to 88
- Alignment No. 2543
- gi No. 2293568
- % Identity 71.9
- Alignment Length 64
- Location of Alignment in SEQ ID NO 162: from 25 to 88
- Alignment No. 2544
- gi No. 4530585
- % Identity 71.9
- Alignment Length 64
- Location of Alignment in SEQ ID NO 162: from 26 to 89
- Alignment No. 2545
- gi No. 5541720
- % Identity 100
- Alignment Length 66
- Location of Alignment in SEQ ID NO 162: from 24 to 89

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 163
- Ceres seq\_id 1498069
- Location of start within SEQ ID NO 161: at 379 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2546
- gi No. 1710521
- % Identity 79.5
- Alignment Length 151
- Location of Alignment in SEQ ID NO 163: from 1 to 108
- Alignment No. 2547
- gi No. 2961300
- % Identity 85.3
- Alignment Length 151
- Location of Alignment in SEQ ID NO 163: from 1 to 107
- Alignment No. 2548
- gi No. 4415907
- % Identity 87
- Alignment Length 163
- Location of Alignment in SEQ ID NO 163: from 1 to 108
- Alignment No. 2549
- gi No. 730544
- % Identity 78.8
- Alignment Length 151
- Location of Alignment in SEQ ID NO 163: from 1 to 108

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 164
- Ceres seq\_id 1498070
- Location of start within SEQ ID NO 161: at 527 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 24885

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 165
- Ceres seq\_id 1498071

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 166
- Ceres seq\_id 1498072
- Location of start within SEQ ID NO 165: at 219 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2550
- gi No. 4581141
- % Identity 81.4
- Alignment Length 177
- Location of Alignment in SEQ ID NO 166: from 1 to 164

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 167
- Ceres seq\_id 1498073
- Location of start within SEQ ID NO 165: at 336 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2551
- gi No. 4581141
- % Identity 81.4
- Alignment Length 177
- Location of Alignment in SEQ ID NO 167: from 1 to 125

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 168
- Ceres seq\_id 1498074
- Location of start within SEQ ID NO 165: at 375 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2552
- gi No. 4581141
- % Identity 81.4
- Alignment Length 177
- Location of Alignment in SEQ ID NO 168: from 1 to 112

Maximum Length Sequence corresponding to clone ID 25068

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 169
- Ceres seq\_id 1498075

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 170
- Ceres seq\_id 1498076
- Location of start within SEQ ID NO 169: at 61 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2553
- gi No. 1592683
- % Identity 70.7



- Alignment Length 150
- Location of Alignment in SEQ ID NO 170: from 1 to 150
  
- Alignment No. 2554
- gi No. 2129641
- % Identity 71.3
- Alignment Length 150
- Location of Alignment in SEQ ID NO 170: from 1 to 150
  
- Alignment No. 2555
- gi No. 2129642
- % Identity 73.6
- Alignment Length 148
- Location of Alignment in SEQ ID NO 170: from 1 to 148
  
- Alignment No. 2556
- gi No. 2244762
- % Identity 75.3
- Alignment Length 150
- Location of Alignment in SEQ ID NO 170: from 1 to 150
  
- Alignment No. 2557
- gi No. 3785981
- % Identity 78
- Alignment Length 150
- Location of Alignment in SEQ ID NO 170: from 1 to 150
  
- Alignment No. 2558
- gi No. 3785982
- % Identity 75.3
- Alignment Length 150
- Location of Alignment in SEQ ID NO 170: from 1 to 150
  
- Alignment No. 2559
- gi No. 4454036
- % Identity 80
- Alignment Length 150
- Location of Alignment in SEQ ID NO 170: from 1 to 150
  
- Alignment No. 2560
- gi No. 4454037
- % Identity 100
- Alignment Length 151
- Location of Alignment in SEQ ID NO 170: from 1 to 151

Maximum Length Sequence corresponding to clone ID 25595

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 171
- Ceres seq\_id 1498077

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 172
- Ceres seq\_id 1498078
- Location of start within SEQ ID NO 171: at 68 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2561
- Lipoprotein amino terminal region
- Location within SEQ ID NO 172: from 55 to 442 aa.
  
- Alignment No. 2562

- Merozoite Surface Antigen 2 (MSA-2) family
- Location within SEQ ID NO 172: from 191 to 335 aa.
  
- Alignment No. 2563
- Mucin-like glycoprotein
- Location within SEQ ID NO 172: from 219 to 368 aa.
  
- Alignment No. 2564
- Mucin-like glycoprotein
- Location within SEQ ID NO 172: from 249 to 395 aa.
  
- Alignment No. 2565
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 172: from 255 to 315 aa.
  
- Alignment No. 2566
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 172: from 267 to 321 aa.
  
- Alignment No. 2567
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 172: from 269 to 327 aa.
  
- Alignment No. 2568
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 172: from 278 to 329 aa.
  
- Alignment No. 2569
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 172: from 282 to 329 aa.
  
- Alignment No. 2570
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 172: from 287 to 329 aa.

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 173
- Ceres seq\_id 1498079
- Location of start within SEQ ID NO 171: at 98 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2571
- Lipoprotein amino terminal region
- Location within SEQ ID NO 173: from 45 to 432 aa.
  
- Alignment No. 2572
- Merozoite Surface Antigen 2 (MSA-2) family
- Location within SEQ ID NO 173: from 181 to 325 aa.
  
- Alignment No. 2573
- Mucin-like glycoprotein
- Location within SEQ ID NO 173: from 209 to 358 aa.
  
- Alignment No. 2574
- Mucin-like glycoprotein
- Location within SEQ ID NO 173: from 239 to 385 aa.
  
- Alignment No. 2575

- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 173: from 245 to 305 aa.
- Alignment No. 2576
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 173: from 257 to 311 aa.
- Alignment No. 2577
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 173: from 259 to 317 aa.
- Alignment No. 2578
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 173: from 268 to 319 aa.
- Alignment No. 2579
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 173: from 272 to 319 aa.
- Alignment No. 2580
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 173: from 277 to 319 aa.

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 174
- Ceres seq\_id 1498080
- Location of start within SEQ ID NO 171: at 218 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2581
- Lipoprotein amino terminal region
- Location within SEQ ID NO 174: from 5 to 392 aa.
- Alignment No. 2582
- Merozoite Surface Antigen 2 (MSA-2) family
- Location within SEQ ID NO 174: from 141 to 285 aa.
- Alignment No. 2583
- Mucin-like glycoprotein
- Location within SEQ ID NO 174: from 169 to 318 aa.
- Alignment No. 2584
- Mucin-like glycoprotein
- Location within SEQ ID NO 174: from 199 to 345 aa.
- Alignment No. 2585
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 174: from 205 to 265 aa.
- Alignment No. 2586
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 174: from 217 to 271 aa.
- Alignment No. 2587
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 174: from 219 to 277 aa.
- Alignment No. 2588

- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 174: from 228 to 279 aa.
- Alignment No. 2589
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 174: from 232 to 279 aa.
- Alignment No. 2590
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 174: from 237 to 279 aa.

(D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 26748

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 175
- Ceres seq\_id 1498083

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 176
- Ceres seq\_id 1498084
- Location of start within SEQ ID NO 175: at 83 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2591
- gi No. 4097547
- % Identity 100
- Alignment Length 74
- Location of Alignment in SEQ ID NO 176: from 49 to 122
- Alignment No. 2592
- gi No. 4097571
- % Identity 75
- Alignment Length 12
- Location of Alignment in SEQ ID NO 176: from 1 to 11

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 177
- Ceres seq\_id 1498085
- Location of start within SEQ ID NO 175: at 135 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 178
- Ceres seq\_id 1498086
- Location of start within SEQ ID NO 175: at 535 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 27144

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 179
- Ceres seq\_id 1498090

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 180

- Ceres seq\_id 1498091
- Location of start within SEQ ID NO 179: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2593
- Prion protein
- Location within SEQ ID NO 180: from 54 to 117 aa.
- Alignment No. 2594
- Prion protein
- Location within SEQ ID NO 180: from 54 to 124 aa.
- Alignment No. 2595
- Prion protein
- Location within SEQ ID NO 180: from 57 to 121 aa.
- Alignment No. 2596
- Prion protein
- Location within SEQ ID NO 180: from 61 to 124 aa.
- Alignment No. 2597
- Dehydrins
- Location within SEQ ID NO 180: from 45 to 123 aa.
- Alignment No. 2598
- Dehydrins
- Location within SEQ ID NO 180: from 57 to 122 aa.
- Alignment No. 2599
- Dehydrins
- Location within SEQ ID NO 180: from 65 to 123 aa.
- Alignment No. 2600
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 180: from 63 to 117 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2601
- gi No. 1076731
- % Identity 71.9
- Alignment Length 32
- Location of Alignment in SEQ ID NO 180: from 92 to 123
- Alignment No. 2602
- gi No. 1076731
- % Identity 75.9
- Alignment Length 58
- Location of Alignment in SEQ ID NO 180: from 70 to 123
- Alignment No. 2603
- gi No. 111899
- % Identity 73.9
- Alignment Length 25
- Location of Alignment in SEQ ID NO 180: from 101 to 123
- Alignment No. 2604
- gi No. 111899
- % Identity 71
- Alignment Length 33
- Location of Alignment in SEQ ID NO 180: from 93 to 123

- Alignment No. 2605
- gi No. 119229
- % Identity 77.3
- Alignment Length 23
- Location of Alignment in SEQ ID NO 180: from 104 to 125
  
- Alignment No. 2606
- gi No. 119231
- % Identity 77.3
- Alignment Length 23
- Location of Alignment in SEQ ID NO 180: from 104 to 125
  
- Alignment No. 2607
- gi No. 1229138
- % Identity 70
- Alignment Length 63
- Location of Alignment in SEQ ID NO 180: from 64 to 123
  
- Alignment No. 2608
- gi No. 1346180
- % Identity 72.2
- Alignment Length 36
- Location of Alignment in SEQ ID NO 180: from 89 to 124
  
- Alignment No. 2609
- gi No. 1405559
- % Identity 81
- Alignment Length 21
- Location of Alignment in SEQ ID NO 180: from 104 to 123
  
- Alignment No. 2610
- gi No. 166376
- % Identity 83.3
- Alignment Length 18
- Location of Alignment in SEQ ID NO 180: from 58 to 75
  
- Alignment No. 2611
- gi No. 166376
- % Identity 76
- Alignment Length 26
- Location of Alignment in SEQ ID NO 180: from 62 to 86
  
- Alignment No. 2612
- gi No. 2226370
- % Identity 74.3
- Alignment Length 38
- Location of Alignment in SEQ ID NO 180: from 89 to 123
  
- Alignment No. 2613
- gi No. 2244982
- % Identity 71.4
- Alignment Length 28
- Location of Alignment in SEQ ID NO 180: from 60 to 86
  
- Alignment No. 2614
- gi No. 2244982
- % Identity 71
- Alignment Length 31
- Location of Alignment in SEQ ID NO 180: from 66 to 96

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- Alignment No. 2615
- gi No. 2668742
- % Identity 73.7
- Alignment Length 38
- Location of Alignment in SEQ ID NO 180: from 89 to 123
  
- Alignment No. 2616
- gi No. 2668742
- % Identity 72.9
- Alignment Length 53
- Location of Alignment in SEQ ID NO 180: from 77 to 123
  
- Alignment No. 2617
- gi No. 2760483
- % Identity 70.6
- Alignment Length 34
- Location of Alignment in SEQ ID NO 180: from 89 to 122
  
- Alignment No. 2618
- gi No. 2826811
- % Identity 85
- Alignment Length 20
- Location of Alignment in SEQ ID NO 180: from 104 to 123
  
- Alignment No. 2619
- gi No. 2826811
- % Identity 77.8
- Alignment Length 27
- Location of Alignment in SEQ ID NO 180: from 97 to 123
  
- Alignment No. 2620
- gi No. 2826811
- % Identity 76.7
- Alignment Length 30
- Location of Alignment in SEQ ID NO 180: from 90 to 118
  
- Alignment No. 2621
- gi No. 2826811
- % Identity 74.2
- Alignment Length 33
- Location of Alignment in SEQ ID NO 180: from 81 to 111
  
- Alignment No. 2622
- gi No. 3183052
- % Identity 81.8
- Alignment Length 11
- Location of Alignment in SEQ ID NO 180: from 105 to 115
  
- Alignment No. 2623
- gi No. 3183052
- % Identity 81.8
- Alignment Length 11
- Location of Alignment in SEQ ID NO 180: from 106 to 116
  
- Alignment No. 2624
- gi No. 3183052
- % Identity 81.8
- Alignment Length 11
- Location of Alignment in SEQ ID NO 180: from 112 to 122
  
- Alignment No. 2625

- gi No. 322514
- % Identity 81.5
- Alignment Length 27
- Location of Alignment in SEQ ID NO 180: from 97 to 123
  
- Alignment No. 2626
- gi No. 322514
- % Identity 81.8
- Alignment Length 33
- Location of Alignment in SEQ ID NO 180: from 90 to 122
  
- Alignment No. 2627
- gi No. 322514
- % Identity 71.4
- Alignment Length 42
- Location of Alignment in SEQ ID NO 180: from 81 to 122
  
- Alignment No. 2628
- gi No. 322647
- % Identity 71.6
- Alignment Length 70
- Location of Alignment in SEQ ID NO 180: from 57 to 123
  
- Alignment No. 2629
- gi No. 322647
- % Identity 70.1
- Alignment Length 70
- Location of Alignment in SEQ ID NO 180: from 57 to 123
  
- Alignment No. 2630
- gi No. 322702
- % Identity 70.6
- Alignment Length 35
- Location of Alignment in SEQ ID NO 180: from 57 to 88
  
- Alignment No. 2631
- gi No. 4455314
- % Identity 81.5
- Alignment Length 27
- Location of Alignment in SEQ ID NO 180: from 97 to 123
  
- Alignment No. 2632
- gi No. 4455314
- % Identity 81.8
- Alignment Length 33
- Location of Alignment in SEQ ID NO 180: from 90 to 122
  
- Alignment No. 2633
- gi No. 4455314
- % Identity 71.4
- Alignment Length 42
- Location of Alignment in SEQ ID NO 180: from 81 to 122
  
- Alignment No. 2634
- gi No. 4507911
- % Identity 70.6
- Alignment Length 34
- Location of Alignment in SEQ ID NO 180: from 89 to 122
  
- Alignment No. 2635
- gi No. 4581173



- % Identity 76.9
- Alignment Length 58
- Location of Alignment in SEQ ID NO 180: from 72 to 123
  
- Alignment No. 2636
- gi No. 4581173
- % Identity 73.8
- Alignment Length 65
- Location of Alignment in SEQ ID NO 180: from 58 to 122
  
- Alignment No. 2637
- gi No. 4581173
- % Identity 89.3
- Alignment Length 86
- Location of Alignment in SEQ ID NO 180: from 40 to 122
  
- Alignment No. 2638
- gi No. 4581173
- % Identity 83.3
- Alignment Length 90
- Location of Alignment in SEQ ID NO 180: from 40 to 122
  
- Alignment No. 2639
- gi No. 4581180
- % Identity 77.3
- Alignment Length 47
- Location of Alignment in SEQ ID NO 180: from 82 to 123
  
- Alignment No. 2640
- gi No. 4581180
- % Identity 75.4
- Alignment Length 74
- Location of Alignment in SEQ ID NO 180: from 56 to 122
  
- Alignment No. 2641
- gi No. 4581180
- % Identity 95.2
- Alignment Length 84
- Location of Alignment in SEQ ID NO 180: from 40 to 123
  
- Alignment No. 2642
- gi No. 4581180
- % Identity 87.9
- Alignment Length 91
- Location of Alignment in SEQ ID NO 180: from 40 to 123
  
- Alignment No. 2643
- gi No. 4678224
- % Identity 71.6
- Alignment Length 70
- Location of Alignment in SEQ ID NO 180: from 57 to 123
  
- Alignment No. 2644
- gi No. 482771
- % Identity 77.3
- Alignment Length 23
- Location of Alignment in SEQ ID NO 180: from 104 to 125
  
- Alignment No. 2645
- gi No. 544416
- % Identity 71.4

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- Alignment Length 36
- Location of Alignment in SEQ ID NO 180: from 91 to 123
  
- Alignment No. 2646
- gi No. 544425
- % Identity 70.3
- Alignment Length 37
- Location of Alignment in SEQ ID NO 180: from 89 to 123
  
- Alignment No. 2647
- gi No. 642484
- % Identity 73.5
- Alignment Length 34
- Location of Alignment in SEQ ID NO 180: from 91 to 124
  
- Alignment No. 2648
- gi No. 82696
- % Identity 72.4
- Alignment Length 60
- Location of Alignment in SEQ ID NO 180: from 66 to 123

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 181
- Ceres seq\_id 1498092
- Location of start within SEQ ID NO 179: at 131 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2649
- Prion protein
- Location within SEQ ID NO 181: from 11 to 74 aa.
  
- Alignment No. 2650
- Prion protein
- Location within SEQ ID NO 181: from 11 to 81 aa.
  
- Alignment No. 2651
- Prion protein
- Location within SEQ ID NO 181: from 14 to 78 aa.
  
- Alignment No. 2652
- Prion protein
- Location within SEQ ID NO 181: from 18 to 81 aa.
  
- Alignment No. 2653
- Dehydrins
- Location within SEQ ID NO 181: from 2 to 80 aa.
  
- Alignment No. 2654
- Dehydrins
- Location within SEQ ID NO 181: from 14 to 79 aa.
  
- Alignment No. 2655
- Dehydrins
- Location within SEQ ID NO 181: from 22 to 80 aa.
  
- Alignment No. 2656
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 181: from 20 to 74 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2657
- gi No. 1076731
- % Identity 71.9
- Alignment Length 32
- Location of Alignment in SEQ ID NO 181: from 49 to 80
  
- Alignment No. 2658
- gi No. 1076731
- % Identity 75.9
- Alignment Length 58
- Location of Alignment in SEQ ID NO 181: from 27 to 80
  
- Alignment No. 2659
- gi No. 111899
- % Identity 73.9
- Alignment Length 25
- Location of Alignment in SEQ ID NO 181: from 58 to 80
  
- Alignment No. 2660
- gi No. 111899
- % Identity 71
- Alignment Length 33
- Location of Alignment in SEQ ID NO 181: from 50 to 80
  
- Alignment No. 2661
- gi No. 119229
- % Identity 77.3
- Alignment Length 23
- Location of Alignment in SEQ ID NO 181: from 61 to 82
  
- Alignment No. 2662
- gi No. 119231
- % Identity 77.3
- Alignment Length 23
- Location of Alignment in SEQ ID NO 181: from 61 to 82
  
- Alignment No. 2663
- gi No. 1229138
- % Identity 70
- Alignment Length 63
- Location of Alignment in SEQ ID NO 181: from 21 to 80
  
- Alignment No. 2664
- gi No. 1346180
- % Identity 72.2
- Alignment Length 36
- Location of Alignment in SEQ ID NO 181: from 46 to 81
  
- Alignment No. 2665
- gi No. 1405559
- % Identity 81
- Alignment Length 21
- Location of Alignment in SEQ ID NO 181: from 61 to 80
  
- Alignment No. 2666
- gi No. 166376
- % Identity 83.3
- Alignment Length 18
- Location of Alignment in SEQ ID NO 181: from 15 to 32
  
- Alignment No. 2667

- gi No. 166376
- % Identity 76
- Alignment Length 26
- Location of Alignment in SEQ ID NO 181: from 19 to 43
  
- Alignment No. 2668
- gi No. 2226370
- % Identity 74.3
- Alignment Length 38
- Location of Alignment in SEQ ID NO 181: from 46 to 80
  
- Alignment No. 2669
- gi No. 2244982
- % Identity 71.4
- Alignment Length 28
- Location of Alignment in SEQ ID NO 181: from 17 to 43
  
- Alignment No. 2670
- gi No. 2244982
- % Identity 71
- Alignment Length 31
- Location of Alignment in SEQ ID NO 181: from 23 to 53
  
- Alignment No. 2671
- gi No. 2668742
- % Identity 73.7
- Alignment Length 38
- Location of Alignment in SEQ ID NO 181: from 46 to 80
  
- Alignment No. 2672
- gi No. 2668742
- % Identity 72.9
- Alignment Length 53
- Location of Alignment in SEQ ID NO 181: from 34 to 80
  
- Alignment No. 2673
- gi No. 2760483
- % Identity 70.6
- Alignment Length 34
- Location of Alignment in SEQ ID NO 181: from 46 to 79
  
- Alignment No. 2674
- gi No. 2826811
- % Identity 85
- Alignment Length 20
- Location of Alignment in SEQ ID NO 181: from 61 to 80
  
- Alignment No. 2675
- gi No. 2826811
- % Identity 77.8
- Alignment Length 27
- Location of Alignment in SEQ ID NO 181: from 54 to 80
  
- Alignment No. 2676
- gi No. 2826811
- % Identity 76.7
- Alignment Length 30
- Location of Alignment in SEQ ID NO 181: from 47 to 75
  
- Alignment No. 2677
- gi No. 2826811

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- % Identity 74.2
- Alignment Length 33
- Location of Alignment in SEQ ID NO 181: from 38 to 68
  
- Alignment No. 2678
- gi No. 3183052
- % Identity 81.8
- Alignment Length 11
- Location of Alignment in SEQ ID NO 181: from 62 to 72
  
- Alignment No. 2679
- gi No. 3183052
- % Identity 81.8
- Alignment Length 11
- Location of Alignment in SEQ ID NO 181: from 63 to 73
  
- Alignment No. 2680
- gi No. 3183052
- % Identity 81.8
- Alignment Length 11
- Location of Alignment in SEQ ID NO 181: from 69 to 79
  
- Alignment No. 2681
- gi No. 322514
- % Identity 81.5
- Alignment Length 27
- Location of Alignment in SEQ ID NO 181: from 54 to 80
  
- Alignment No. 2682
- gi No. 322514
- % Identity 81.8
- Alignment Length 33
- Location of Alignment in SEQ ID NO 181: from 47 to 79
  
- Alignment No. 2683
- gi No. 322514
- % Identity 71.4
- Alignment Length 42
- Location of Alignment in SEQ ID NO 181: from 38 to 79
  
- Alignment No. 2684
- gi No. 322647
- % Identity 71.6
- Alignment Length 70
- Location of Alignment in SEQ ID NO 181: from 14 to 80
  
- Alignment No. 2685
- gi No. 322647
- % Identity 70.1
- Alignment Length 70
- Location of Alignment in SEQ ID NO 181: from 14 to 80
  
- Alignment No. 2686
- gi No. 322702
- % Identity 70.6
- Alignment Length 35
- Location of Alignment in SEQ ID NO 181: from 14 to 45
  
- Alignment No. 2687
- gi No. 4455314
- % Identity 81.5

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- Alignment Length 27
- Location of Alignment in SEQ ID NO 181: from 54 to 80
- Alignment No. 2688
- gi No. 4455314
- % Identity 81.8
- Alignment Length 33
- Location of Alignment in SEQ ID NO 181: from 47 to 79
- Alignment No. 2689
- gi No. 4455314
- % Identity 71.4
- Alignment Length 42
- Location of Alignment in SEQ ID NO 181: from 38 to 79
- Alignment No. 2690
- gi No. 4507911
- % Identity 70.6
- Alignment Length 34
- Location of Alignment in SEQ ID NO 181: from 46 to 79
- Alignment No. 2691
- gi No. 4581173
- % Identity 76.9
- Alignment Length 58
- Location of Alignment in SEQ ID NO 181: from 29 to 80
- Alignment No. 2692
- gi No. 4581173
- % Identity 73.8
- Alignment Length 65
- Location of Alignment in SEQ ID NO 181: from 15 to 79
- Alignment No. 2693
- gi No. 4581173
- % Identity 89.3
- Alignment Length 86
- Location of Alignment in SEQ ID NO 181: from 1 to 79
- Alignment No. 2694
- gi No. 4581173
- % Identity 83.3
- Alignment Length 90
- Location of Alignment in SEQ ID NO 181: from 1 to 79
- Alignment No. 2695
- gi No. 4581180
- % Identity 77.3
- Alignment Length 47
- Location of Alignment in SEQ ID NO 181: from 39 to 80
- Alignment No. 2696
- gi No. 4581180
- % Identity 75.4
- Alignment Length 74
- Location of Alignment in SEQ ID NO 181: from 13 to 79
- Alignment No. 2697
- gi No. 4581180
- % Identity 95.2
- Alignment Length 84

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- Location of Alignment in SEQ ID NO 181: from 1 to 80
- Alignment No. 2698
- gi No. 4581180
- % Identity 87.9
- Alignment Length 91
- Location of Alignment in SEQ ID NO 181: from 1 to 80
- Alignment No. 2699
- gi No. 4678224
- % Identity 71.6
- Alignment Length 70
- Location of Alignment in SEQ ID NO 181: from 14 to 80
- Alignment No. 2700
- gi No. 482771
- % Identity 77.3
- Alignment Length 23
- Location of Alignment in SEQ ID NO 181: from 61 to 82
- Alignment No. 2701
- gi No. 544416
- % Identity 71.4
- Alignment Length 36
- Location of Alignment in SEQ ID NO 181: from 48 to 80
- Alignment No. 2702
- gi No. 544425
- % Identity 70.3
- Alignment Length 37
- Location of Alignment in SEQ ID NO 181: from 46 to 80
- Alignment No. 2703
- gi No. 642484
- % Identity 73.5
- Alignment Length 34
- Location of Alignment in SEQ ID NO 181: from 48 to 81
- Alignment No. 2704
- gi No. 82696
- % Identity 72.4
- Alignment Length 60
- Location of Alignment in SEQ ID NO 181: from 23 to 80

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 182
- Ceres seq\_id 1498093
- Location of start within SEQ ID NO 179: at 195 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 27539

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 183
- Ceres seq\_id 1498097

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 184
- Ceres seq\_id 1498098
- Location of start within SEQ ID NO 183: at 639 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2705
- tRNA synthetases class II (D, K and N)
- Location within SEQ ID NO 184: from 232 to 295 aa.
  
- Alignment No. 2706
- Aspartyl-tRNA synthetase (AspRS), N terminus
- Location within SEQ ID NO 184: from 61 to 200 aa.

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 185
- Ceres seq\_id 1498099
- Location of start within SEQ ID NO 183: at 951 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2707
- tRNA synthetases class II (D, K and N)
- Location within SEQ ID NO 185: from 128 to 191 aa.
  
- Alignment No. 2708
- Aspartyl-tRNA synthetase (AspRS), N terminus
- Location within SEQ ID NO 185: from 1 to 96 aa.

(D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 28407

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 186
- Ceres seq\_id 1498100

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 187
- Ceres seq\_id 1498101
- Location of start within SEQ ID NO 186: at 247 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2709
- Amino acid permease
- Location within SEQ ID NO 187: from 40 to 131 aa.

(D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 28471

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 188
- Ceres seq\_id 1498102

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 189
- Ceres seq\_id 1498103
- Location of start within SEQ ID NO 188: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2710
- Ribosomal protein L7/L12 C-terminal domain
- Location within SEQ ID NO 189: from 144 to 212 aa.



(D) Related Amino Acid Sequences

- Alignment No. 2711
- gi No. 223560
- % Identity 74.6
- Alignment Length 130
- Location of Alignment in SEQ ID NO 189: from 80 to 209
  
- Alignment No. 2712
- gi No. 548653
- % Identity 99.5
- Alignment Length 191
- Location of Alignment in SEQ ID NO 189: from 22 to 212
  
- Alignment No. 2713
- gi No. 548654
- % Identity 72.4
- Alignment Length 192
- Location of Alignment in SEQ ID NO 189: from 22 to 211
  
- Alignment No. 2714
- gi No. 548655
- % Identity 88.5
- Alignment Length 191
- Location of Alignment in SEQ ID NO 189: from 22 to 212

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 190
- Ceres seq\_id 1498104
- Location of start within SEQ ID NO 188: at 66 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2715
- Ribosomal protein L7/L12 C-terminal domain
- Location within SEQ ID NO 190: from 123 to 191 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2716
- gi No. 223560
- % Identity 74.6
- Alignment Length 130
- Location of Alignment in SEQ ID NO 190: from 59 to 188
  
- Alignment No. 2717
- gi No. 548653
- % Identity 99.5
- Alignment Length 191
- Location of Alignment in SEQ ID NO 190: from 1 to 191
  
- Alignment No. 2718
- gi No. 548654
- % Identity 72.4
- Alignment Length 192
- Location of Alignment in SEQ ID NO 190: from 1 to 190
  
- Alignment No. 2719
- gi No. 548655
- % Identity 88.5
- Alignment Length 191
- Location of Alignment in SEQ ID NO 190: from 1 to 191

Maximum Length Sequence corresponding to clone ID 29326 .

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 191
- Ceres seq\_id 1498109

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 192
- Ceres seq\_id 1498110
- Location of start within SEQ ID NO 191: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2720
- gi No. 3953457
- % Identity 98.4
- Alignment Length 553
- Location of Alignment in SEQ ID NO 192: from 20 to 569

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 193
- Ceres seq\_id 1498111
- Location of start within SEQ ID NO 191: at 59 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2721
- gi No. 3953457
- % Identity 98.4
- Alignment Length 553
- Location of Alignment in SEQ ID NO 193: from 1 to 550

Maximum Length Sequence corresponding to clone ID 29746

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 194
- Ceres seq\_id 1498112

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 195
- Ceres seq\_id 1498113
- Location of start within SEQ ID NO 194: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 196
- Ceres seq\_id 1498114
- Location of start within SEQ ID NO 194: at 27 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2722
- gi No. 4586263
- % Identity 73
- Alignment Length 100
- Location of Alignment in SEQ ID NO 196: from 1 to 99
- Alignment No. 2723

- gi No. 5123937
- % Identity 100
- Alignment Length 99
- Location of Alignment in SEQ ID NO 196: from 1 to 99

Maximum Length Sequence corresponding to clone ID 30800

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 197
- Ceres seq\_id 1498119

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 198
- Ceres seq\_id 1498120
- Location of start within SEQ ID NO 197: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2724
- gi No. 2739375
- % Identity 100
- Alignment Length 96
- Location of Alignment in SEQ ID NO 198: from 20 to 115
- Alignment No. 2725
- gi No. 3090403
- % Identity 100
- Alignment Length 67
- Location of Alignment in SEQ ID NO 198: from 49 to 115

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 199
- Ceres seq\_id 1498121
- Location of start within SEQ ID NO 197: at 59 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2726
- gi No. 2739375
- % Identity 100
- Alignment Length 96
- Location of Alignment in SEQ ID NO 199: from 1 to 96
- Alignment No. 2727
- gi No. 3090403
- % Identity 100
- Alignment Length 67
- Location of Alignment in SEQ ID NO 199: from 30 to 96

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 200
- Ceres seq\_id 1498122
- Location of start within SEQ ID NO 197: at 146 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2728
- gi No. 2739375
- % Identity 100
- Alignment Length 96

- Location of Alignment in SEQ ID NO 200: from 1 to 67
- Alignment No. 2729
- gi No. 3090403
- % Identity 100
- Alignment Length 67
- Location of Alignment in SEQ ID NO 200: from 1 to 67

Maximum Length Sequence corresponding to clone ID 32164

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 201
- Ceres seq\_id 1498123

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 202
- Ceres seq\_id 1498124
- Location of start within SEQ ID NO 201: at 86 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2730
- gi No. 3687251
- % Identity 100
- Alignment Length 143
- Location of Alignment in SEQ ID NO 202: from 1 to 143

Maximum Length Sequence corresponding to clone ID 32434

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 203
- Ceres seq\_id 1498129

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 204
- Ceres seq\_id 1498130
- Location of start within SEQ ID NO 203: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2731
- gi No. 2131046
- % Identity 71.4
- Alignment Length 14
- Location of Alignment in SEQ ID NO 204: from 64 to 77
- Alignment No. 2732
- gi No. 2833647
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 204: from 64 to 79
- Alignment No. 2733
- gi No. 2833647
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 204: from 64 to 79
- Alignment No. 2734
- gi No. 2833649
- % Identity 73.3
- Alignment Length 16
- Location of Alignment in SEQ ID NO 204: from 65 to 79

- Alignment No. 2735
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 204: from 64 to 79
  
- Alignment No. 2736
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 204: from 64 to 79
  
- Alignment No. 2737
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 204: from 64 to 79
  
- Alignment No. 2738
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 204: from 64 to 79
  
- Alignment No. 2739
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 204: from 64 to 79
  
- Alignment No. 2740
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 204: from 64 to 79
  
- Alignment No. 2741
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 204: from 64 to 79
  
- Alignment No. 2742
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 204: from 64 to 79

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 205
- Ceres seq\_id 1498131
- Location of start within SEQ ID NO 203: at 131 nt.

(C) Nomination and Annotation of Domains within Predicted  
Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2743
- gi No. 2131046
- % Identity 71.4
- Alignment Length 14

- Location of Alignment in SEQ ID NO 205: from 21 to 34
- Alignment No. 2744
- gi No. 2833647
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 205: from 21 to 36
- Alignment No. 2745
- gi No. 2833647
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 205: from 21 to 36
- Alignment No. 2746
- gi No. 2833649
- % Identity 73.3
- Alignment Length 16
- Location of Alignment in SEQ ID NO 205: from 22 to 36
- Alignment No. 2747
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 205: from 21 to 36
- Alignment No. 2748
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 205: from 21 to 36
- Alignment No. 2749
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 205: from 21 to 36
- Alignment No. 2750
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 205: from 21 to 36
- Alignment No. 2751
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 205: from 21 to 36
- Alignment No. 2752
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 205: from 21 to 36
- Alignment No. 2753
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 205: from 21 to 36

- Alignment No. 2754
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 205: from 21 to 36

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 206
- Ceres seq\_id 1498132
- Location of start within SEQ ID NO 203: at 149 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2755
- gi No. 2131046
- % Identity 71.4
- Alignment Length 14
- Location of Alignment in SEQ ID NO 206: from 15 to 28
  
- Alignment No. 2756
- gi No. 2833647
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 206: from 15 to 30
  
- Alignment No. 2757
- gi No. 2833647
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 206: from 15 to 30
  
- Alignment No. 2758
- gi No. 2833649
- % Identity 73.3
- Alignment Length 16
- Location of Alignment in SEQ ID NO 206: from 16 to 30
  
- Alignment No. 2759
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 206: from 15 to 30
  
- Alignment No. 2760
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 206: from 15 to 30
  
- Alignment No. 2761
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 206: from 15 to 30
  
- Alignment No. 2762
- gi No. 2833649
- % Identity 75
- Alignment Length 17

- Location of Alignment in SEQ ID NO 206: from 15 to 30
- Alignment No. 2763
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 206: from 15 to 30
- Alignment No. 2764
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 206: from 15 to 30
- Alignment No. 2765
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 206: from 15 to 30
- Alignment No. 2766
- gi No. 2833649
- % Identity 75
- Alignment Length 17
- Location of Alignment in SEQ ID NO 206: from 15 to 30

Maximum Length Sequence corresponding to clone ID 32753

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 207
- Ceres seq\_id 1498133

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 208
- Ceres seq\_id 1498134
- Location of start within SEQ ID NO 207: at 63 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2767
- Ribosomal L18p family
- Location within SEQ ID NO 208: from 13 to 229 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2768
- gi No. 3915819
- % Identity 80
- Alignment Length 45
- Location of Alignment in SEQ ID NO 208: from 3 to 47
- Alignment No. 2769
- gi No. 3915823
- % Identity 98.3
- Alignment Length 58
- Location of Alignment in SEQ ID NO 208: from 3 to 60
- Alignment No. 2770
- gi No. 3915824
- % Identity 87
- Alignment Length 69
- Location of Alignment in SEQ ID NO 208: from 217 to 285
- Alignment No. 2771



- gi No. 3915826
- % Identity 77.3
- Alignment Length 282
- Location of Alignment in SEQ ID NO 208: from 3 to 284
  
- Alignment No. 2772
- gi No. 542157
- % Identity 73.5
- Alignment Length 285
- Location of Alignment in SEQ ID NO 208: from 3 to 282

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 209
- Ceres seq\_id 1498135
- Location of start within SEQ ID NO 207: at 396 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2773
- Ribosomal L18p family
- Location within SEQ ID NO 209: from 1 to 118 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2774
- gi No. 3915824
- % Identity 87
- Alignment Length 69
- Location of Alignment in SEQ ID NO 209: from 106 to 174
  
- Alignment No. 2775
- gi No. 3915826
- % Identity 77.3
- Alignment Length 282
- Location of Alignment in SEQ ID NO 209: from 1 to 173
  
- Alignment No. 2776
- gi No. 542157
- % Identity 73.5
- Alignment Length 285
- Location of Alignment in SEQ ID NO 209: from 1 to 171

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 210
- Ceres seq\_id 1498136
- Location of start within SEQ ID NO 207: at 405 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2777
- Ribosomal L18p family
- Location within SEQ ID NO 210: from 1 to 115 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2778
- gi No. 3915824
- % Identity 87
- Alignment Length 69
- Location of Alignment in SEQ ID NO 210: from 103 to 171
  
- Alignment No. 2779
- gi No. 3915826

- % Identity 77.3
- Alignment Length 282
- Location of Alignment in SEQ ID NO 210: from 1 to 170
- Alignment No. 2780
- gi No. 542157
- % Identity 73.5
- Alignment Length 285
- Location of Alignment in SEQ ID NO 210: from 1 to 168

Maximum Length Sequence corresponding to clone ID 32792

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 211
- Ceres seq\_id 1498137

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 212
- Ceres seq\_id 1498138
- Location of start within SEQ ID NO 211: at 452 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2781
- Syntaxin
- Location within SEQ ID NO 212: from 1 to 189 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2782
- gi No. 2501102
- % Identity 98.7
- Alignment Length 239
- Location of Alignment in SEQ ID NO 212: from 1 to 198

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 213
- Ceres seq\_id 1498139
- Location of start within SEQ ID NO 211: at 557 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2783
- Syntaxin
- Location within SEQ ID NO 213: from 1 to 154 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2784
- gi No. 2501102
- % Identity 98.7
- Alignment Length 239
- Location of Alignment in SEQ ID NO 213: from 1 to 163

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 214
- Ceres seq\_id 1498140
- Location of start within SEQ ID NO 211: at 584 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2785
- Syntaxin
- Location within SEQ ID NO 214: from 1 to 145 aa.

- (D) Related Amino Acid Sequences
  - Alignment No. 2786
  - gi No. 2501102
  - % Identity 98.7
  - Alignment Length 239
  - Location of Alignment in SEQ ID NO 214: from 1 to 154

Maximum Length Sequence corresponding to clone ID 33287

- (A) Polynucleotide Sequence
  - Pat. Appln. SEQ ID NO 215
  - Ceres seq\_id 1498141
- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 216
  - Ceres seq\_id 1498142
  - Location of start within SEQ ID NO 215: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- (D) Related Amino Acid Sequences
  - Alignment No. 2787
  - gi No. 3080418
  - % Identity 76.4
  - Alignment Length 72
  - Location of Alignment in SEQ ID NO 216: from 129 to 200
- Alignment No. 2788
  - gi No. 4415940
  - % Identity 84.7
  - Alignment Length 131
  - Location of Alignment in SEQ ID NO 216: from 15 to 145

- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 217
  - Ceres seq\_id 1498143
  - Location of start within SEQ ID NO 215: at 39 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- (D) Related Amino Acid Sequences
  - Alignment No. 2789
  - gi No. 3080418
  - % Identity 76.4
  - Alignment Length 72
  - Location of Alignment in SEQ ID NO 217: from 117 to 188
- Alignment No. 2790
  - gi No. 4415940
  - % Identity 84.7
  - Alignment Length 131
  - Location of Alignment in SEQ ID NO 217: from 3 to 133

- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 218
  - Ceres seq\_id 1498144
  - Location of start within SEQ ID NO 215: at 60 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- (D) Related Amino Acid Sequences
  - Alignment No. 2791
  - gi No. 3080418

- % Identity 76.4
- Alignment Length 72
- Location of Alignment in SEQ ID NO 218: from 110 to 181
  
- Alignment No. 2792
- gi No. 4415940
- % Identity 84.7
- Alignment Length 131
- Location of Alignment in SEQ ID NO 218: from 1 to 126

Maximum Length Sequence corresponding to clone ID 33884

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 219
- Ceres seq\_id 1498145

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 220
- Ceres seq\_id 1498146
- Location of start within SEQ ID NO 219: at 134 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2793
- TCP-1/cpn60 chaperonin family
- Location within SEQ ID NO 220: from 30 to 281 aa.
  
- Alignment No. 2794
- Glutathione S-transferases.
- Location within SEQ ID NO 220: from 252 to 353 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2795
- gi No. 1402898
- % Identity 91.9
- Alignment Length 123
- Location of Alignment in SEQ ID NO 220: from 252 to 353
  
- Alignment No. 2796
- gi No. 321234
- % Identity 89.5
- Alignment Length 19
- Location of Alignment in SEQ ID NO 220: from 85 to 103
  
- Alignment No. 2797
- gi No. 3738287
- % Identity 91.9
- Alignment Length 123
- Location of Alignment in SEQ ID NO 220: from 252 to 353

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 221
- Ceres seq\_id 1498147
- Location of start within SEQ ID NO 219: at 194 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2798
- TCP-1/cpn60 chaperonin family
- Location within SEQ ID NO 221: from 10 to 261 aa.
  
- Alignment No. 2799
- Glutathione S-transferases.

- Location within SEQ ID NO 221: from 232 to 333 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2800
- gi No. 1402898
- % Identity 91.9
- Alignment Length 123
- Location of Alignment in SEQ ID NO 221: from 232 to 333
- Alignment No. 2801
- gi No. 321234
- % Identity 89.5
- Alignment Length 19
- Location of Alignment in SEQ ID NO 221: from 65 to 83
- Alignment No. 2802
- gi No. 3738287
- % Identity 91.9
- Alignment Length 123
- Location of Alignment in SEQ ID NO 221: from 232 to 333

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 222
- Ceres seq\_id 1498148
- Location of start within SEQ ID NO 219: at 215 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2803
- TCP-1/cpn60 chaperonin family
- Location within SEQ ID NO 222: from 3 to 254 aa.
- Alignment No. 2804
- Glutathione S-transferases.
- Location within SEQ ID NO 222: from 225 to 326 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2805
- gi No. 1402898
- % Identity 91.9
- Alignment Length 123
- Location of Alignment in SEQ ID NO 222: from 225 to 326
- Alignment No. 2806
- gi No. 321234
- % Identity 89.5
- Alignment Length 19
- Location of Alignment in SEQ ID NO 222: from 58 to 76
- Alignment No. 2807
- gi No. 3738287
- % Identity 91.9
- Alignment Length 123
- Location of Alignment in SEQ ID NO 222: from 225 to 326

Maximum Length Sequence corresponding to clone ID 34113

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 223
- Ceres seq\_id 1498149

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 224

- Ceres seq\_id 1498150
- Location of start within SEQ ID NO 223: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2808
- gi No. 3522940
- % Identity 99.1
- Alignment Length 216
- Location of Alignment in SEQ ID NO 224: from 24 to 239

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 225
- Ceres seq\_id 1498151
- Location of start within SEQ ID NO 223: at 71 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2809
- gi No. 3522940
- % Identity 99.1
- Alignment Length 216
- Location of Alignment in SEQ ID NO 225: from 1 to 216

Maximum Length Sequence corresponding to clone ID 36016

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 226
- Ceres seq\_id 1498152

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 227
- Ceres seq\_id 1498153
- Location of start within SEQ ID NO 226: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2810
- Dehydrins
- Location within SEQ ID NO 227: from 38 to 106 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2811
- gi No. 1169277
- % Identity 76.1
- Alignment Length 67
- Location of Alignment in SEQ ID NO 227: from 37 to 103

- Alignment No. 2812
- gi No. 1169280
- % Identity 100
- Alignment Length 70
- Location of Alignment in SEQ ID NO 227: from 37 to 106

- Alignment No. 2813
- gi No. 2129637
- % Identity 98.6
- Alignment Length 70
- Location of Alignment in SEQ ID NO 227: from 37 to 106

- Alignment No. 2814

- gi No. 99681
- % Identity 99
- Alignment Length 99
- Location of Alignment in SEQ ID NO 227: from 8 to 106

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 228
- Ceres seq\_id 1498154
- Location of start within SEQ ID NO 226: at 109 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2815
- Dehydrins
- Location within SEQ ID NO 228: from 2 to 70 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2816
- gi No. 1169277
- % Identity 76.1
- Alignment Length 67
- Location of Alignment in SEQ ID NO 228: from 1 to 67
  
- Alignment No. 2817
- gi No. 1169280
- % Identity 100
- Alignment Length 70
- Location of Alignment in SEQ ID NO 228: from 1 to 70
  
- Alignment No. 2818
- gi No. 2129637
- % Identity 98.6
- Alignment Length 70
- Location of Alignment in SEQ ID NO 228: from 1 to 70
  
- Alignment No. 2819
- gi No. 99681
- % Identity 99
- Alignment Length 99
- Location of Alignment in SEQ ID NO 228: from 1 to 70

Maximum Length Sequence corresponding to clone ID 36041

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 229
- Ceres seq\_id 1498155

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 230
- Ceres seq\_id 1498156
- Location of start within SEQ ID NO 229: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2820
- gi No. 4510385
- % Identity 99.2
- Alignment Length 236
- Location of Alignment in SEQ ID NO 230: from 95 to 330

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 231

- Ceres seq\_id 1498157
- Location of start within SEQ ID NO 229: at 59 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2821
- gi No. 4510385
- % Identity 99.2
- Alignment Length 236
- Location of Alignment in SEQ ID NO 231: from 76 to 311

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 232
- Ceres seq\_id 1498158
- Location of start within SEQ ID NO 229: at 89 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2822
- gi No. 4510385
- % Identity 99.2
- Alignment Length 236
- Location of Alignment in SEQ ID NO 232: from 66 to 301

Maximum Length Sequence corresponding to clone ID 36054

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 233
- Ceres seq\_id 1498159

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 234
- Ceres seq\_id 1498160
- Location of start within SEQ ID NO 233: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2823
- gi No. 2435511
- % Identity 99.6
- Alignment Length 268
- Location of Alignment in SEQ ID NO 234: from 26 to 293
- Alignment No. 2824
- gi No. 3805847
- % Identity 70.5
- Alignment Length 135
- Location of Alignment in SEQ ID NO 234: from 26 to 157
- Alignment No. 2825
- gi No. 3805847
- % Identity 85
- Alignment Length 140
- Location of Alignment in SEQ ID NO 234: from 154 to 293

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 235
- Ceres seq\_id 1498161
- Location of start within SEQ ID NO 233: at 78 nt.



(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2826
- gi No. 2435511
- % Identity 99.6
- Alignment Length 268
- Location of Alignment in SEQ ID NO 235: from 1 to 268
  
- Alignment No. 2827
- gi No. 3805847
- % Identity 70.5
- Alignment Length 135
- Location of Alignment in SEQ ID NO 235: from 1 to 132
  
- Alignment No. 2828
- gi No. 3805847
- % Identity 85
- Alignment Length 140
- Location of Alignment in SEQ ID NO 235: from 129 to 268

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 236
- Ceres seq\_id 1498162
- Location of start within SEQ ID NO 233: at 411 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2829
- gi No. 2435511
- % Identity 99.6
- Alignment Length 268
- Location of Alignment in SEQ ID NO 236: from 1 to 157
  
- Alignment No. 2830
- gi No. 3805847
- % Identity 70.5
- Alignment Length 135
- Location of Alignment in SEQ ID NO 236: from 1 to 21
  
- Alignment No. 2831
- gi No. 3805847
- % Identity 85
- Alignment Length 140
- Location of Alignment in SEQ ID NO 236: from 18 to 157

Maximum Length Sequence corresponding to clone ID 36414

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 237
- Ceres seq\_id 1498163

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 238
- Ceres seq\_id 1498164
- Location of start within SEQ ID NO 237: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 239
- Ceres seq\_id 1498165
- Location of start within SEQ ID NO 237: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- (D) Related Amino Acid Sequences
- Alignment No. 2832
  - gi No. 5360953
  - % Identity 76.1
  - Alignment Length 67
  - Location of Alignment in SEQ ID NO 239: from 1 to 67

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 240
- Ceres seq\_id 1498166
- Location of start within SEQ ID NO 237: at 105 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- (D) Related Amino Acid Sequences
- Alignment No. 2833
  - gi No. 5360953
  - % Identity 76.1
  - Alignment Length 67
  - Location of Alignment in SEQ ID NO 240: from 1 to 33

Maximum Length Sequence corresponding to clone ID 36421

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 241
- Ceres seq\_id 1498167

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 242
- Ceres seq\_id 1498168
- Location of start within SEQ ID NO 241: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 243
- Ceres seq\_id 1498169
- Location of start within SEQ ID NO 241: at 566 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- (D) Related Amino Acid Sequences
- Alignment No. 2834
  - gi No. 3176682
  - % Identity 100
  - Alignment Length 107
  - Location of Alignment in SEQ ID NO 243: from 1 to 85

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 244
- Ceres seq\_id 1498170
- Location of start within SEQ ID NO 241: at 638 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- (D) Related Amino Acid Sequences
  - Alignment No. 2835
  - gi No. 3176682
  - % Identity 100
  - Alignment Length 107
  - Location of Alignment in SEQ ID NO 244: from 1 to 61

Maximum Length Sequence corresponding to clone ID 38085

- (A) Polynucleotide Sequence
  - Pat. Appln. SEQ ID NO 245
  - Ceres seq\_id 1498173
- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 246
  - Ceres seq\_id 1498174
  - Location of start within SEQ ID NO 245: at 3 nt.

- (C) Nomination and Annotation of Domains within Predicted Polypeptide(s)
  - Alignment No. 2836
  - Pathogenesis-related protein Bet v I family
  - Location within SEQ ID NO 246: from 36 to 183 aa.

- (D) Related Amino Acid Sequences

- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 247
  - Ceres seq\_id 1498175
  - Location of start within SEQ ID NO 245: at 39 nt.

- (C) Nomination and Annotation of Domains within Predicted Polypeptide(s)
  - Alignment No. 2837
  - Pathogenesis-related protein Bet v I family
  - Location within SEQ ID NO 247: from 24 to 171 aa.

- (D) Related Amino Acid Sequences

- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 248
  - Ceres seq\_id 1498176
  - Location of start within SEQ ID NO 245: at 66 nt.

- (C) Nomination and Annotation of Domains within Predicted Polypeptide(s)
  - Alignment No. 2838
  - Pathogenesis-related protein Bet v I family
  - Location within SEQ ID NO 248: from 15 to 162 aa.

- (D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 38874

- (A) Polynucleotide Sequence
  - Pat. Appln. SEQ ID NO 249
  - Ceres seq\_id 1498177
- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 250
  - Ceres seq\_id 1498178
  - Location of start within SEQ ID NO 249: at 37 nt.

- (C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2839
- Lipase/Acylhydrolase with GDSL-like motif
- Location within SEQ ID NO 250: from 38 to 182 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2840
- gi No. 4314378
- % Identity 74.3
- Alignment Length 176
- Location of Alignment in SEQ ID NO 250: from 8 to 182

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 251
- Ceres seq\_id 1498179
- Location of start within SEQ ID NO 249: at 52 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2841
- Lipase/Acylhydrolase with GDSL-like motif
- Location within SEQ ID NO 251: from 33 to 177 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2842
- gi No. 4314378
- % Identity 74.3
- Alignment Length 176
- Location of Alignment in SEQ ID NO 251: from 3 to 177

Maximum Length Sequence corresponding to clone ID 38945

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 252
- Ceres seq\_id 1498180

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 253
- Ceres seq\_id 1498181
- Location of start within SEQ ID NO 252: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2843
- RNA recognition motif. (a.k.a. RRM, RBD, or RNP domain)
- Location within SEQ ID NO 253: from 26 to 91 aa.

- Alignment No. 2844
- RNA recognition motif. (a.k.a. RRM, RBD, or RNP domain)
- Location within SEQ ID NO 253: from 117 to 166 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2845
- gi No. 4033467
- % Identity 99.5
- Alignment Length 189
- Location of Alignment in SEQ ID NO 253: from 23 to 211

- Alignment No. 2846
- gi No. 4415941
- % Identity 73.2
- Alignment Length 199
- Location of Alignment in SEQ ID NO 253: from 23 to 218

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 254
- Ceres seq\_id 1498182
- Location of start within SEQ ID NO 252: at 67 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2847
- RNA recognition motif. (a.k.a. RRM, RBD, or RNP domain)
- Location within SEQ ID NO 254: from 4 to 69 aa.
- Alignment No. 2848
- RNA recognition motif. (a.k.a. RRM, RBD, or RNP domain)
- Location within SEQ ID NO 254: from 95 to 144 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2849
- gi No. 4033467
- % Identity 99.5
- Alignment Length 189
- Location of Alignment in SEQ ID NO 254: from 1 to 189
- Alignment No. 2850
- gi No. 4415941
- % Identity 73.2
- Alignment Length 199
- Location of Alignment in SEQ ID NO 254: from 1 to 196

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 255
- Ceres seq\_id 1498183
- Location of start within SEQ ID NO 252: at 163 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2851
- RNA recognition motif. (a.k.a. RRM, RBD, or RNP domain)
- Location within SEQ ID NO 255: from 63 to 112 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2852
- gi No. 4033467
- % Identity 99.5
- Alignment Length 189
- Location of Alignment in SEQ ID NO 255: from 1 to 157
- Alignment No. 2853
- gi No. 4415941
- % Identity 73.2
- Alignment Length 199
- Location of Alignment in SEQ ID NO 255: from 1 to 164

Maximum Length Sequence corresponding to clone ID 40312

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 256
- Ceres seq\_id 1498190

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 257
- Ceres seq\_id 1498191
- Location of start within SEQ ID NO 256: at 160 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2854
- ER lumen protein retaining receptor
- Location within SEQ ID NO 257: from 1 to 205 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2855
- gi No. 4105782
- % Identity 86.5
- Alignment Length 215
- Location of Alignment in SEQ ID NO 257: from 1 to 215

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 258
- Ceres seq\_id 1498192
- Location of start within SEQ ID NO 256: at 187 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2856
- ER lumen protein retaining receptor
- Location within SEQ ID NO 258: from 1 to 196 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2857
- gi No. 4105782
- % Identity 86.5
- Alignment Length 215
- Location of Alignment in SEQ ID NO 258: from 1 to 206

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 259
- Ceres seq\_id 1498193
- Location of start within SEQ ID NO 256: at 346 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2858
- ER lumen protein retaining receptor
- Location within SEQ ID NO 259: from 1 to 143 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2859
- gi No. 4105782
- % Identity 86.5
- Alignment Length 215
- Location of Alignment in SEQ ID NO 259: from 1 to 153

Maximum Length Sequence corresponding to clone ID 40334

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 260
- Ceres seq\_id 1498194

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 261
- Ceres seq\_id 1498195
- Location of start within SEQ ID NO 260: at 122 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2860

domain) - SRF-type transcription factor (DNA-binding and dimerisation)  
- Location within SEQ ID NO 261: from 1 to 59 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2861
- gi No. 1208802
- % Identity 72
- Alignment Length 25
- Location of Alignment in SEQ ID NO 261: from 17 to 41
- Alignment No. 2862
- gi No. 1346724
- % Identity 100
- Alignment Length 208
- Location of Alignment in SEQ ID NO 261: from 1 to 208
- Alignment No. 2863
- gi No. 1362203
- % Identity 70.2
- Alignment Length 57
- Location of Alignment in SEQ ID NO 261: from 1 to 57
- Alignment No. 2864
- gi No. 3170468
- % Identity 83.3
- Alignment Length 12
- Location of Alignment in SEQ ID NO 261: from 187 to 198
- Alignment No. 2865
- gi No. 497147
- % Identity 73.1
- Alignment Length 26
- Location of Alignment in SEQ ID NO 261: from 10 to 35

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 262
- Ceres seq\_id 1498196
- Location of start within SEQ ID NO 260: at 281 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2866
- gi No. 1346724
- % Identity 100
- Alignment Length 208
- Location of Alignment in SEQ ID NO 262: from 1 to 155
- Alignment No. 2867
- gi No. 3170468
- % Identity 83.3
- Alignment Length 12
- Location of Alignment in SEQ ID NO 262: from 134 to 145

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 263
- Ceres seq\_id 1498197
- Location of start within SEQ ID NO 260: at 305 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2868
- gi No. 1346724
- % Identity 100
- Alignment Length 208
- Location of Alignment in SEQ ID NO 263: from 1 to 147
  
- Alignment No. 2869
- gi No. 3170468
- % Identity 83.3
- Alignment Length 12
- Location of Alignment in SEQ ID NO 263: from 126 to 137

Maximum Length Sequence corresponding to clone ID 40696

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 264
- Ceres seq\_id 1498198

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 265
- Ceres seq\_id 1498199
- Location of start within SEQ ID NO 264: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2870
- gi No. 2245118
- % Identity 76.6
- Alignment Length 262
- Location of Alignment in SEQ ID NO 265: from 51 to 304
  
- Alignment No. 2871
- gi No. 3599670
- % Identity 71.4
- Alignment Length 28
- Location of Alignment in SEQ ID NO 265: from 17 to 44
  
- Alignment No. 2872
- gi No. 4741966
- % Identity 76.6
- Alignment Length 262
- Location of Alignment in SEQ ID NO 265: from 51 to 304
  
- Alignment No. 2873
- gi No. 746442
- % Identity 73.1
- Alignment Length 26
- Location of Alignment in SEQ ID NO 265: from 16 to 41

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 266
- Ceres seq\_id 1498200
- Location of start within SEQ ID NO 264: at 139 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2874
- gi No. 2245118



- % Identity 76.6
- Alignment Length 262
- Location of Alignment in SEQ ID NO 266: from 5 to 258
  
- Alignment No. 2875
- gi No. 4741966
- % Identity 76.6
- Alignment Length 262
- Location of Alignment in SEQ ID NO 266: from 5 to 258

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 267
- Ceres seq\_id 1498201
- Location of start within SEQ ID NO 264: at 151 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2876
- gi No. 2245118
- % Identity 76.6
- Alignment Length 262
- Location of Alignment in SEQ ID NO 267: from 1 to 254
  
- Alignment No. 2877
- gi No. 4741966
- % Identity 76.6
- Alignment Length 262
- Location of Alignment in SEQ ID NO 267: from 1 to 254

Maximum Length Sequence corresponding to clone ID 40808

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 268
- Ceres seq\_id 1498202

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 269
- Ceres seq\_id 1498203
- Location of start within SEQ ID NO 268: at 132 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2878
- gi No. 5123951
- % Identity 98.3
- Alignment Length 179
- Location of Alignment in SEQ ID NO 269: from 1 to 171

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 270
- Ceres seq\_id 1498204
- Location of start within SEQ ID NO 268: at 141 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2879
- gi No. 5123951
- % Identity 98.3
- Alignment Length 179
- Location of Alignment in SEQ ID NO 270: from 1 to 168

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 271
- Ceres seq\_id 1498205
- Location of start within SEQ ID NO 268: at 183 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2880
- gi No. 5123951
- % Identity 98.3
- Alignment Length 179
- Location of Alignment in SEQ ID NO 271: from 1 to 154

Maximum Length Sequence corresponding to clone ID 40811

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 272
- Ceres seq\_id 1498206

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 273
- Ceres seq\_id 1498207
- Location of start within SEQ ID NO 272: at 52 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2881
- lactate/malate dehydrogenase
- Location within SEQ ID NO 273: from 101 to 420 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2882
- gi No. 100754
- % Identity 85.2
- Alignment Length 271
- Location of Alignment in SEQ ID NO 273: from 172 to 442
- Alignment No. 2883
- gi No. 100756
- % Identity 81.4
- Alignment Length 395
- Location of Alignment in SEQ ID NO 273: from 51 to 442
- Alignment No. 2884
- gi No. 1170895
- % Identity 76.9
- Alignment Length 438
- Location of Alignment in SEQ ID NO 273: from 7 to 443
- Alignment No. 2885
- gi No. 126888
- % Identity 81
- Alignment Length 400
- Location of Alignment in SEQ ID NO 273: from 47 to 443
- Alignment No. 2886
- gi No. 126892
- % Identity 82.2
- Alignment Length 393
- Location of Alignment in SEQ ID NO 273: from 51 to 443

- Alignment No. 2887
- gi No. 126893
- % Identity 82.4
- Alignment Length 393
- Location of Alignment in SEQ ID NO 273: from 51 to 443
  
- Alignment No. 2888
- gi No. 1708968
- % Identity 75.6
- Alignment Length 445
- Location of Alignment in SEQ ID NO 273: from 1 to 443
  
- Alignment No. 2889
- gi No. 1770192
- % Identity 72.8
- Alignment Length 173
- Location of Alignment in SEQ ID NO 273: from 155 to 327
  
- Alignment No. 2890
- gi No. 235737
- % Identity 80.4
- Alignment Length 398
- Location of Alignment in SEQ ID NO 273: from 51 to 442
  
- Alignment No. 2891
- gi No. 2827076
- % Identity 81
- Alignment Length 444
- Location of Alignment in SEQ ID NO 273: from 1 to 443
  
- Alignment No. 2892
- gi No. 322715
- % Identity 95.2
- Alignment Length 21
- Location of Alignment in SEQ ID NO 273: from 93 to 113
  
- Alignment No. 2893
- gi No. 462578
- % Identity 79
- Alignment Length 446
- Location of Alignment in SEQ ID NO 273: from 1 to 443
  
- Alignment No. 2894
- gi No. 462579
- % Identity 80.1
- Alignment Length 447
- Location of Alignment in SEQ ID NO 273: from 1 to 443
  
- Alignment No. 2895
- gi No. 480347
- % Identity 84.2
- Alignment Length 19
- Location of Alignment in SEQ ID NO 273: from 72 to 90
  
- Alignment No. 2896
- gi No. 480347
- % Identity 72.7
- Alignment Length 33
- Location of Alignment in SEQ ID NO 273: from 345 to 377
  
- Alignment No. 2897

- gi No. 481223
- % Identity 85.9
- Alignment Length 391
- Location of Alignment in SEQ ID NO 273: from 54 to 443
  
- Alignment No. 2898
- gi No. 5420032
- % Identity 70.7
- Alignment Length 441
- Location of Alignment in SEQ ID NO 273: from 6 to 442
  
- Alignment No. 2899
- gi No. 5420036
- % Identity 71.5
- Alignment Length 444
- Location of Alignment in SEQ ID NO 273: from 1 to 442
  
- Alignment No. 2900
- gi No. 5542577
- % Identity 85.7
- Alignment Length 371
- Location of Alignment in SEQ ID NO 273: from 73 to 443
  
- Alignment No. 2901
- gi No. 585467
- % Identity 81
- Alignment Length 395
- Location of Alignment in SEQ ID NO 273: from 51 to 442
  
- Alignment No. 2902
- gi No. 726334
- % Identity 81.7
- Alignment Length 399
- Location of Alignment in SEQ ID NO 273: from 45 to 443

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 274
- Ceres seq\_id 1498208
- Location of start within SEQ ID NO 272: at 58 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2903
- lactate/malate dehydrogenase
- Location within SEQ ID NO 274: from 99 to 418 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2904
- gi No. 100754
- % Identity 85.2
- Alignment Length 271
- Location of Alignment in SEQ ID NO 274: from 170 to 440
  
- Alignment No. 2905
- gi No. 100756
- % Identity 81.4
- Alignment Length 395
- Location of Alignment in SEQ ID NO 274: from 49 to 440
  
- Alignment No. 2906
- gi No. 1170895

- % Identity 76.9
- Alignment Length 438
- Location of Alignment in SEQ ID NO 274: from 5 to 441
  
- Alignment No. 2907
- gi No. 126888
- % Identity 81
- Alignment Length 400
- Location of Alignment in SEQ ID NO 274: from 45 to 441
  
- Alignment No. 2908
- gi No. 126892
- % Identity 82.2
- Alignment Length 393
- Location of Alignment in SEQ ID NO 274: from 49 to 441
  
- Alignment No. 2909
- gi No. 126893
- % Identity 82.4
- Alignment Length 393
- Location of Alignment in SEQ ID NO 274: from 49 to 441
  
- Alignment No. 2910
- gi No. 1708968
- % Identity 75.6
- Alignment Length 445
- Location of Alignment in SEQ ID NO 274: from 1 to 441
  
- Alignment No. 2911
- gi No. 1770192
- % Identity 72.8
- Alignment Length 173
- Location of Alignment in SEQ ID NO 274: from 153 to 325
  
- Alignment No. 2912
- gi No. 235737
- % Identity 80.4
- Alignment Length 398
- Location of Alignment in SEQ ID NO 274: from 49 to 440
  
- Alignment No. 2913
- gi No. 2827076
- % Identity 81
- Alignment Length 444
- Location of Alignment in SEQ ID NO 274: from 1 to 441
  
- Alignment No. 2914
- gi No. 322715
- % Identity 95.2
- Alignment Length 21
- Location of Alignment in SEQ ID NO 274: from 91 to 111
  
- Alignment No. 2915
- gi No. 462578
- % Identity 79
- Alignment Length 446
- Location of Alignment in SEQ ID NO 274: from 1 to 441
  
- Alignment No. 2916
- gi No. 462579
- % Identity 80.1

- Alignment Length 447
- Location of Alignment in SEQ ID NO 274: from 1 to 441
- Alignment No. 2917
- gi No. 480347
- % Identity 84.2
- Alignment Length 19
- Location of Alignment in SEQ ID NO 274: from 70 to 88
- Alignment No. 2918
- gi No. 480347
- % Identity 72.7
- Alignment Length 33
- Location of Alignment in SEQ ID NO 274: from 343 to 375
- Alignment No. 2919
- gi No. 481223
- % Identity 85.9
- Alignment Length 391
- Location of Alignment in SEQ ID NO 274: from 52 to 441
- Alignment No. 2920
- gi No. 5420032
- % Identity 70.7
- Alignment Length 441
- Location of Alignment in SEQ ID NO 274: from 4 to 440
- Alignment No. 2921
- gi No. 5420036
- % Identity 71.5
- Alignment Length 444
- Location of Alignment in SEQ ID NO 274: from 1 to 440
- Alignment No. 2922
- gi No. 5542577
- % Identity 85.7
- Alignment Length 371
- Location of Alignment in SEQ ID NO 274: from 71 to 441
- Alignment No. 2923
- gi No. 585467
- % Identity 81
- Alignment Length 395
- Location of Alignment in SEQ ID NO 274: from 49 to 440
- Alignment No. 2924
- gi No. 726334
- % Identity 81.7
- Alignment Length 399
- Location of Alignment in SEQ ID NO 274: from 43 to 441

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 275
- Ceres seq\_id 1498209
- Location of start within SEQ ID NO 272: at 379 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2925
- lactate/malate dehydrogenase
- Location within SEQ ID NO 275: from 1 to 311 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2926
- gi No. 100754
- % Identity 85.2
- Alignment Length 271
- Location of Alignment in SEQ ID NO 275: from 63 to 333
  
- Alignment No. 2927
- gi No. 100756
- % Identity 81.4
- Alignment Length 395
- Location of Alignment in SEQ ID NO 275: from 1 to 333
  
- Alignment No. 2928
- gi No. 1170895
- % Identity 76.9
- Alignment Length 438
- Location of Alignment in SEQ ID NO 275: from 1 to 334
  
- Alignment No. 2929
- gi No. 126888
- % Identity 81
- Alignment Length 400
- Location of Alignment in SEQ ID NO 275: from 1 to 334
  
- Alignment No. 2930
- gi No. 126892
- % Identity 82.2
- Alignment Length 393
- Location of Alignment in SEQ ID NO 275: from 1 to 334
  
- Alignment No. 2931
- gi No. 126893
- % Identity 82.4
- Alignment Length 393
- Location of Alignment in SEQ ID NO 275: from 1 to 334
  
- Alignment No. 2932
- gi No. 1708968
- % Identity 75.6
- Alignment Length 445
- Location of Alignment in SEQ ID NO 275: from 1 to 334
  
- Alignment No. 2933
- gi No. 1770192
- % Identity 72.8
- Alignment Length 173
- Location of Alignment in SEQ ID NO 275: from 46 to 218
  
- Alignment No. 2934
- gi No. 235737
- % Identity 80.4
- Alignment Length 398
- Location of Alignment in SEQ ID NO 275: from 1 to 333
  
- Alignment No. 2935
- gi No. 2827076
- % Identity 81
- Alignment Length 444
- Location of Alignment in SEQ ID NO 275: from 1 to 334

- Alignment No. 2936
- gi No. 462578
- % Identity 79
- Alignment Length 446
- Location of Alignment in SEQ ID NO 275: from 1 to 334
  
- Alignment No. 2937
- gi No. 462579
- % Identity 80.1
- Alignment Length 447
- Location of Alignment in SEQ ID NO 275: from 1 to 334
  
- Alignment No. 2938
- gi No. 480347
- % Identity 72.7
- Alignment Length 33
- Location of Alignment in SEQ ID NO 275: from 236 to 268
  
- Alignment No. 2939
- gi No. 481223
- % Identity 85.9
- Alignment Length 391
- Location of Alignment in SEQ ID NO 275: from 1 to 334
  
- Alignment No. 2940
- gi No. 5420032
- % Identity 70.7
- Alignment Length 441
- Location of Alignment in SEQ ID NO 275: from 1 to 333
  
- Alignment No. 2941
- gi No. 5420036
- % Identity 71.5
- Alignment Length 444
- Location of Alignment in SEQ ID NO 275: from 1 to 333
  
- Alignment No. 2942
- gi No. 5542577
- % Identity 85.7
- Alignment Length 371
- Location of Alignment in SEQ ID NO 275: from 1 to 334
  
- Alignment No. 2943
- gi No. 585467
- % Identity 81
- Alignment Length 395
- Location of Alignment in SEQ ID NO 275: from 1 to 333
  
- Alignment No. 2944
- gi No. 726334
- % Identity 81.7
- Alignment Length 399
- Location of Alignment in SEQ ID NO 275: from 1 to 334

Maximum Length Sequence corresponding to clone ID 41672

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 276
- Ceres seq\_id 1498210

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 277



- Ceres seq\_id 1498211
- Location of start within SEQ ID NO 276: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2945
- Dehydrogenase E1 component
- Location within SEQ ID NO 277: from 123 to 427 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2946
- gi No. 2454182
- % Identity 100
- Alignment Length 428
- Location of Alignment in SEQ ID NO 277: from 35 to 462

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 278
- Ceres seq\_id 1498212
- Location of start within SEQ ID NO 276: at 105 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2947
- Dehydrogenase E1 component
- Location within SEQ ID NO 278: from 89 to 393 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2948
- gi No. 2454182
- % Identity 100
- Alignment Length 428
- Location of Alignment in SEQ ID NO 278: from 1 to 428

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 279
- Ceres seq\_id 1498213
- Location of start within SEQ ID NO 276: at 375 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2949
- Dehydrogenase E1 component
- Location within SEQ ID NO 279: from 1 to 303 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2950
- gi No. 2454182
- % Identity 100
- Alignment Length 428
- Location of Alignment in SEQ ID NO 279: from 1 to 338

Maximum Length Sequence corresponding to clone ID 41681

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 280
- Ceres seq\_id 1498214

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 281
- Ceres seq\_id 1498215
- Location of start within SEQ ID NO 280: at 251 nt.

(C) Nomination and Annotation of Domains within Predicted  
Polypeptide(s)

- Alignment No. 2951
- Ras family
- Location within SEQ ID NO 281: from 19 to 131 aa.
- Alignment No. 2952
- G-protein alpha subunit
- Location within SEQ ID NO 281: from 46 to 130 aa.
- Alignment No. 2953
- ADP-ribosylation factor family
- Location within SEQ ID NO 281: from 2 to 179 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2954
- gi No. 2129946
- % Identity 70.1
- Alignment Length 87
- Location of Alignment in SEQ ID NO 281: from 1 to 87

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 282
- Ceres seq\_id 1498216
- Location of start within SEQ ID NO 280: at 302 nt.

(C) Nomination and Annotation of Domains within Predicted  
Polypeptide(s)

- Alignment No. 2955
- Ras family
- Location within SEQ ID NO 282: from 2 to 114 aa.
- Alignment No. 2956
- G-protein alpha subunit
- Location within SEQ ID NO 282: from 29 to 113 aa.
- Alignment No. 2957
- ADP-ribosylation factor family
- Location within SEQ ID NO 282: from 1 to 162 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2958
- gi No. 2129946
- % Identity 70.1
- Alignment Length 87
- Location of Alignment in SEQ ID NO 282: from 1 to 70

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 283
- Ceres seq\_id 1498217
- Location of start within SEQ ID NO 280: at 314 nt.

(C) Nomination and Annotation of Domains within Predicted  
Polypeptide(s)

- Alignment No. 2959
- Ras family
- Location within SEQ ID NO 283: from 1 to 110 aa.
- Alignment No. 2960
- G-protein alpha subunit
- Location within SEQ ID NO 283: from 25 to 109 aa.

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- Alignment No. 2961
- ADP-ribosylation factor family
- Location within SEQ ID NO 283: from 1 to 158 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2962
- gi No. 2129946
- % Identity 70.1
- Alignment Length 87
- Location of Alignment in SEQ ID NO 283: from 1 to 66

Maximum Length Sequence corresponding to clone ID 42300

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 284
- Ceres seq\_id 1498218

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 285
- Ceres seq\_id 1498219
- Location of start within SEQ ID NO 284: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2963
- haloacid dehalogenase-like hydrolase
- Location within SEQ ID NO 285: from 82 to 266 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2964
- gi No. 3261827
- % Identity 81.8
- Alignment Length 11
- Location of Alignment in SEQ ID NO 285: from 83 to 93

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 286
- Ceres seq\_id 1498220
- Location of start within SEQ ID NO 284: at 25 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2965
- haloacid dehalogenase-like hydrolase
- Location within SEQ ID NO 286: from 74 to 258 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2966
- gi No. 3261827
- % Identity 81.8
- Alignment Length 11
- Location of Alignment in SEQ ID NO 286: from 75 to 85

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 287
- Ceres seq\_id 1498221
- Location of start within SEQ ID NO 284: at 265 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2967
- haloacid dehalogenase-like hydrolase

- Location within SEQ ID NO 287: from 1 to 178 aa.

(D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 91753

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 288
- Ceres seq\_id 1498223

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 289
- Ceres seq\_id 1498224
- Location of start within SEQ ID NO 288: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2968
- gi No. 4914316
- % Identity 100
- Alignment Length 167
- Location of Alignment in SEQ ID NO 289: from 27 to 193

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 290
- Ceres seq\_id 1498225
- Location of start within SEQ ID NO 288: at 79 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2969
- gi No. 4914316
- % Identity 100
- Alignment Length 167
- Location of Alignment in SEQ ID NO 290: from 1 to 167

Maximum Length Sequence corresponding to clone ID 91801

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 291
- Ceres seq\_id 1498226

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 292
- Ceres seq\_id 1498227
- Location of start within SEQ ID NO 291: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2970
- Uncharacterized protein family UPF0021
- Location within SEQ ID NO 292: from 1 to 77 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2971
- gi No. 3128173
- % Identity 100
- Alignment Length 120
- Location of Alignment in SEQ ID NO 292: from 1 to 120

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 293
- Ceres seq\_id 1498228

- Location of start within SEQ ID NO 291: at 150 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2972
- gi No. 3128173
- % Identity 100
- Alignment Length 120
- Location of Alignment in SEQ ID NO 293: from 1 to 71

Maximum Length Sequence corresponding to clone ID 93008

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 294
- Ceres seq\_id 1498244

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 295
- Ceres seq\_id 1498245
- Location of start within SEQ ID NO 294: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 296
- Ceres seq\_id 1498246
- Location of start within SEQ ID NO 294: at 29 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 297
- Ceres seq\_id 1498247
- Location of start within SEQ ID NO 294: at 250 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2973
- gi No. 2894570
- % Identity 100
- Alignment Length 114
- Location of Alignment in SEQ ID NO 297: from 1 to 51

Maximum Length Sequence corresponding to clone ID 93224

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 298
- Ceres seq\_id 1498251

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 299
- Ceres seq\_id 1498252
- Location of start within SEQ ID NO 298: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2974
- DNA photolyase
- Location within SEQ ID NO 299: from 14 to 446 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2975
- gi No. 2529668
- % Identity 100
- Alignment Length 447
- Location of Alignment in SEQ ID NO 299: from 14 to 460

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 300
- Ceres seq\_id 1498253
- Location of start within SEQ ID NO 298: at 40 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2976
- DNA photolyase
- Location within SEQ ID NO 300: from 1 to 433 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2977
- gi No. 2529668
- % Identity 100
- Alignment Length 447
- Location of Alignment in SEQ ID NO 300: from 1 to 447

Maximum Length Sequence corresponding to clone ID 93362

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 301
- Ceres seq\_id 1498254

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 302
- Ceres seq\_id 1498255
- Location of start within SEQ ID NO 301: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2978
- gi No. 3513730
- % Identity 83
- Alignment Length 88
- Location of Alignment in SEQ ID NO 302: from 22 to 95

- Alignment No. 2979

- gi No. 4539371

- % Identity 98.9

- Alignment Length 92

- Location of Alignment in SEQ ID NO 302: from 22 to 113

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 303
- Ceres seq\_id 1498256
- Location of start within SEQ ID NO 301: at 66 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2980
- gi No. 3513730
- % Identity 83

- Alignment Length 88
- Location of Alignment in SEQ ID NO 303: from 1 to 74
- Alignment No. 2981
- gi No. 4539371
- % Identity 98.9
- Alignment Length 92
- Location of Alignment in SEQ ID NO 303: from 1 to 92

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 304
- Ceres seq\_id 1498257
- Location of start within SEQ ID NO 301: at 407 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2982
- gi No. 3513730
- % Identity 99.2
- Alignment Length 125
- Location of Alignment in SEQ ID NO 304: from 1 to 104
- Alignment No. 2983
- gi No. 4539371
- % Identity 99.2
- Alignment Length 125
- Location of Alignment in SEQ ID NO 304: from 1 to 104

Maximum Length Sequence corresponding to clone ID 93427

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 305
- Ceres seq\_id 1498261

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 306
- Ceres seq\_id 1498262
- Location of start within SEQ ID NO 305: at 43 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2984
- Clathrin light chain
- Location within SEQ ID NO 306: from 5 to 205 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2985
- gi No. 3068716
- % Identity 96.6
- Alignment Length 179
- Location of Alignment in SEQ ID NO 306: from 36 to 214

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 307
- Ceres seq\_id 1498263
- Location of start within SEQ ID NO 305: at 316 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2986
- Clathrin light chain
- Location within SEQ ID NO 307: from 1 to 114 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2987
- gi No. 3068716
- % Identity 96.6
- Alignment Length 179
- Location of Alignment in SEQ ID NO 307: from 1 to 123

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 308
- Ceres seq\_id 1498264
- Location of start within SEQ ID NO 305: at 403 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2988
- Clathrin light chain
- Location within SEQ ID NO 308: from 1 to 85 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2989
- gi No. 3068716
- % Identity 96.6
- Alignment Length 179
- Location of Alignment in SEQ ID NO 308: from 1 to 94

Maximum Length Sequence corresponding to clone ID 94917

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 309
- Ceres seq\_id 1498268

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 310
- Ceres seq\_id 1498269
- Location of start within SEQ ID NO 309: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2990
- gi No. 3128209
- % Identity 100
- Alignment Length 167
- Location of Alignment in SEQ ID NO 310: from 1 to 167

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 311
- Ceres seq\_id 1498270
- Location of start within SEQ ID NO 309: at 156 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2991
- gi No. 3128209
- % Identity 100
- Alignment Length 167
- Location of Alignment in SEQ ID NO 311: from 1 to 116

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 312
- Ceres seq\_id 1498271



- Location of start within SEQ ID NO 309: at 189 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 2992
- gi No. 3128209
- % Identity 100
- Alignment Length 167
- Location of Alignment in SEQ ID NO 312: from 1 to 105

Maximum Length Sequence corresponding to clone ID 95066

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 313
- Ceres seq\_id 1498272

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 314
- Ceres seq\_id 1498273
- Location of start within SEQ ID NO 313: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2993
- GATA zinc finger
- Location within SEQ ID NO 314: from 224 to 263 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2994
- gi No. 1076609
- % Identity 76.4
- Alignment Length 55
- Location of Alignment in SEQ ID NO 314: from 238 to 292

- Alignment No. 2995
- gi No. 3688170
- % Identity 97.4
- Alignment Length 308
- Location of Alignment in SEQ ID NO 314: from 30 to 337

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 315
- Ceres seq\_id 1498274
- Location of start within SEQ ID NO 313: at 88 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2996
- GATA zinc finger
- Location within SEQ ID NO 315: from 195 to 234 aa.

(D) Related Amino Acid Sequences

- Alignment No. 2997
- gi No. 1076609
- % Identity 76.4
- Alignment Length 55
- Location of Alignment in SEQ ID NO 315: from 209 to 263

- Alignment No. 2998
- gi No. 3688170
- % Identity 97.4
- Alignment Length 308

- Location of Alignment in SEQ ID NO 315: from 1 to 308

Maximum Length Sequence corresponding to clone ID 95083

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 316
- Ceres seq\_id 1498279

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 317
- Ceres seq\_id 1498280
- Location of start within SEQ ID NO 316: at 278 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 2999
- Glycosyl hydrolases family 17
- Location within SEQ ID NO 317: from 33 to 352 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3000
- gi No. 2739385
- % Identity 99.4
- Alignment Length 341
- Location of Alignment in SEQ ID NO 317: from 28 to 368

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 318
- Ceres seq\_id 1498281
- Location of start within SEQ ID NO 316: at 557 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3001
- Glycosyl hydrolases family 17
- Location within SEQ ID NO 318: from 1 to 259 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3002
- gi No. 2739385
- % Identity 99.4
- Alignment Length 341
- Location of Alignment in SEQ ID NO 318: from 1 to 275

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 319
- Ceres seq\_id 1498282
- Location of start within SEQ ID NO 316: at 734 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3003
- Glycosyl hydrolases family 17
- Location within SEQ ID NO 319: from 1 to 200 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3004
- gi No. 2739385
- % Identity 99.4
- Alignment Length 341
- Location of Alignment in SEQ ID NO 319: from 1 to 216

Maximum Length Sequence corresponding to clone ID 95166

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 320
- Ceres seq\_id 1498283

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 321
- Ceres seq\_id 1498284
- Location of start within SEQ ID NO 320: at 134 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3005
- Ribosomal S17
- Location within SEQ ID NO 321: from 1 to 122 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3006
- gi No. 1350944
- % Identity 96.3
- Alignment Length 80
- Location of Alignment in SEQ ID NO 321: from 1 to 80
- Alignment No. 3007
- gi No. 1350945
- % Identity 76.5
- Alignment Length 68
- Location of Alignment in SEQ ID NO 321: from 58 to 123
- Alignment No. 3008
- gi No. 4587611
- % Identity 97.9
- Alignment Length 141
- Location of Alignment in SEQ ID NO 321: from 1 to 141
- Alignment No. 3009
- gi No. 4755193
- % Identity 91.9
- Alignment Length 160
- Location of Alignment in SEQ ID NO 321: from 1 to 141

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 322
- Ceres seq\_id 1498285
- Location of start within SEQ ID NO 320: at 203 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3010
- Ribosomal S17
- Location within SEQ ID NO 322: from 1 to 99 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3011
- gi No. 1350944
- % Identity 96.3
- Alignment Length 80
- Location of Alignment in SEQ ID NO 322: from 1 to 57
- Alignment No. 3012
- gi No. 1350945
- % Identity 76.5
- Alignment Length 68

- Location of Alignment in SEQ ID NO 322: from 35 to 100
- Alignment No. 3013
- gi No. 4587611
- % Identity 97.9
- Alignment Length 141
- Location of Alignment in SEQ ID NO 322: from 1 to 118
- Alignment No. 3014
- gi No. 4755193
- % Identity 91.9
- Alignment Length 160
- Location of Alignment in SEQ ID NO 322: from 1 to 118

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 323
- Ceres seq\_id 1498286
- Location of start within SEQ ID NO 320: at 305 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3015
- Ribosomal S17
- Location within SEQ ID NO 323: from 1 to 65 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3016
- gi No. 1350944
- % Identity 96.3
- Alignment Length 80
- Location of Alignment in SEQ ID NO 323: from 1 to 23
- Alignment No. 3017
- gi No. 1350945
- % Identity 76.5
- Alignment Length 68
- Location of Alignment in SEQ ID NO 323: from 1 to 66
- Alignment No. 3018
- gi No. 4587611
- % Identity 97.9
- Alignment Length 141
- Location of Alignment in SEQ ID NO 323: from 1 to 84
- Alignment No. 3019
- gi No. 4755193
- % Identity 91.9
- Alignment Length 160
- Location of Alignment in SEQ ID NO 323: from 1 to 84

Maximum Length Sequence corresponding to clone ID 96435

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 324
- Ceres seq\_id 1498291

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 325
- Ceres seq\_id 1498292
- Location of start within SEQ ID NO 324: at 39 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- (D) Related Amino Acid Sequences
  - Alignment No. 3020
  - gi No. 4972061
  - % Identity 99.7
  - Alignment Length 350
  - Location of Alignment in SEQ ID NO 325: from 3 to 352

- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 326
  - Ceres seq\_id 1498293
  - Location of start within SEQ ID NO 324: at 234 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- (D) Related Amino Acid Sequences
  - Alignment No. 3021
  - gi No. 4972061
  - % Identity 99.7
  - Alignment Length 350
  - Location of Alignment in SEQ ID NO 326: from 1 to 287

- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 327
  - Ceres seq\_id 1498294
  - Location of start within SEQ ID NO 324: at 300 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- (D) Related Amino Acid Sequences
  - Alignment No. 3022
  - gi No. 4972061
  - % Identity 99.7
  - Alignment Length 350
  - Location of Alignment in SEQ ID NO 327: from 1 to 265

Maximum Length Sequence corresponding to clone ID 99557

- (A) Polynucleotide Sequence
  - Pat. Appln. SEQ ID NO 328
  - Ceres seq\_id 1498295
- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 329
  - Ceres seq\_id 1498296
  - Location of start within SEQ ID NO 328: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3023
- Purine/pyrimidine phosphoribosyl transferases
- Location within SEQ ID NO 329: from 10 to 192 aa.

(D) Related Amino Acid Sequences

- (B) Polypeptide Sequence
  - Pat. Appln. SEQ ID NO 330
  - Ceres seq\_id 1498297
  - Location of start within SEQ ID NO 328: at 17 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3024
- Purine/pyrimidine phosphoribosyl transferases

- Location within SEQ ID NO 330: from 5 to 187 aa.

(D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 101030

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 331
- Ceres seq\_id 1498309

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 332
- Ceres seq\_id 1498310
- Location of start within SEQ ID NO 331: at 123 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 3025
- gi No. 3914467
- % Identity 81.3
- Alignment Length 387
- Location of Alignment in SEQ ID NO 332: from 1 to 386

- Alignment No. 3026

- gi No. 3914468

- % Identity 71.8

- Alignment Length 388

- Location of Alignment in SEQ ID NO 332: from 1 to 386

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 333
- Ceres seq\_id 1498311
- Location of start within SEQ ID NO 331: at 141 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 3027
- gi No. 3914467
- % Identity 81.3
- Alignment Length 387
- Location of Alignment in SEQ ID NO 333: from 1 to 380

- Alignment No. 3028

- gi No. 3914468

- % Identity 71.8

- Alignment Length 388

- Location of Alignment in SEQ ID NO 333: from 1 to 380

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 334
- Ceres seq\_id 1498312
- Location of start within SEQ ID NO 331: at 195 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 3029
- gi No. 3914467
- % Identity 81.3
- Alignment Length 387
- Location of Alignment in SEQ ID NO 334: from 1 to 362

- ```
- Alignment No. 3030
- gi No. 3914468
- % Identity 71.8
- Alignment Length 388
- Location of Alignment in SEQ ID NO 334: from 1 to 362
```

Maximum Length Sequence corresponding to clone ID 101035

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 335  
- Ceres seq\_id 1498313

(B) Polypeptide Sequence

- ```
- Pat. Appln. SEQ ID NO 336
- Ceres seq_id 1498314
- Location of start within SEQ ID NO 335: at 2 nt.
```

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3031
- Homeobox domain
- Location within SEQ ID NO 336: from 397 to 431 aa.

#### (D) Related Amino Acid Sequences

- ```
- Alignment No. 3032
- gi No. 4510375
- % Identity 73.3
- Alignment Length 15
- Location of Alignment in SEQ ID NO 336: from 530 to 544
```

- ```
- Alignment No. 3033
- gi No. 5306275
- % Identity 70.4
- Alignment Length 54
- Location of Alignment in SEQ ID NO 336: from 367 to 420
```

- ```
- Alignment No. 3034
- gi No. 542057
- % Identity 89.5
- Alignment Length 19
- Location of Alignment in SEQ ID NO 336: from 401 to 419
```

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 337
- Ceres seq\_id 1498315
- Location of start within SEQ ID NO 335: at 71 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3035
- Homeobox domain
- Location within SEQ ID NO 337: from 374 to 408 aa.

#### (D) Related Amino Acid Sequences

- ```
- Alignment No. 3036
- gi No. 4510375
- % Identity 73.3
- Alignment Length 15
- Location of Alignment in SEQ ID NO 337: from 507 to 521
```

- Alignment No. 3037
- gi No. 5306275

- % Identity 70.4
- Alignment Length 54
- Location of Alignment in SEQ ID NO 337: from 344 to 397
- Alignment No. 3038
- gi No. 542057
- % Identity 89.5
- Alignment Length 19
- Location of Alignment in SEQ ID NO 337: from 378 to 396

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 338
- Ceres seq\_id 1498316
- Location of start within SEQ ID NO 335: at 296 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3039
- Homeobox domain
- Location within SEQ ID NO 338: from 299 to 333 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3040
- gi No. 4510375
- % Identity 73.3
- Alignment Length 15
- Location of Alignment in SEQ ID NO 338: from 432 to 446
- Alignment No. 3041
- gi No. 5306275
- % Identity 70.4
- Alignment Length 54
- Location of Alignment in SEQ ID NO 338: from 269 to 322
- Alignment No. 3042
- gi No. 542057
- % Identity 89.5
- Alignment Length 19
- Location of Alignment in SEQ ID NO 338: from 303 to 321

Maximum Length Sequence corresponding to clone ID 101605

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 339
- Ceres seq\_id 1498317

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 340
- Ceres seq\_id 1498318
- Location of start within SEQ ID NO 339: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3043
- Core histone H2A/H2B/H3/H4
- Location within SEQ ID NO 340: from 24 to 101 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3044
- gi No. 1076776
- % Identity 75.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101



- Alignment No. 3045
- gi No. 1076777
- % Identity 74.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3046
- gi No. 1154954
- % Identity 93.8
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3047
- gi No. 1161302
- % Identity 74.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3048
- gi No. 1170158
- % Identity 72.1
- Alignment Length 68
- Location of Alignment in SEQ ID NO 340: from 21 to 88
  
- Alignment No. 3049
- gi No. 121961
- % Identity 72.8
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3050
- gi No. 121962
- % Identity 71.6
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3051
- gi No. 121963
- % Identity 74.1
- Alignment Length 82
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3052
- gi No. 121964
- % Identity 75.3
- Alignment Length 77
- Location of Alignment in SEQ ID NO 340: from 25 to 101
  
- Alignment No. 3053
- gi No. 121965
- % Identity 80.3
- Alignment Length 71
- Location of Alignment in SEQ ID NO 340: from 31 to 101
  
- Alignment No. 3054
- gi No. 121966
- % Identity 75.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101

- Alignment No. 3055
- gi No. 121968
- % Identity 74.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3056
- gi No. 121971
- % Identity 74.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3057
- gi No. 121972
- % Identity 74.1
- Alignment Length 82
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3058
- gi No. 121973
- % Identity 75.3
- Alignment Length 77
- Location of Alignment in SEQ ID NO 340: from 25 to 101
  
- Alignment No. 3059
- gi No. 121974
- % Identity 76.3
- Alignment Length 76
- Location of Alignment in SEQ ID NO 340: from 26 to 101
  
- Alignment No. 3060
- gi No. 121977
- % Identity 80.3
- Alignment Length 66
- Location of Alignment in SEQ ID NO 340: from 36 to 101
  
- Alignment No. 3061
- gi No. 121978
- % Identity 74.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3062
- gi No. 121979
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3063
- gi No. 121980
- % Identity 82.1
- Alignment Length 67
- Location of Alignment in SEQ ID NO 340: from 35 to 101
  
- Alignment No. 3064
- gi No. 121981
- % Identity 82.7
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3065

- gi No. 121982
- % Identity 73.8
- Alignment Length 84
- Location of Alignment in SEQ ID NO 340: from 18 to 101
  
- Alignment No. 3066
- gi No. 121983
- % Identity 71.8
- Alignment Length 85
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3067
- gi No. 121984
- % Identity 74.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3068
- gi No. 121985
- % Identity 84
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3069
- gi No. 121987
- % Identity 77.8
- Alignment Length 82
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3070
- gi No. 121993
- % Identity 77.8
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3071
- gi No. 121996
- % Identity 75.3
- Alignment Length 82
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3072
- gi No. 121997
- % Identity 77.2
- Alignment Length 79
- Location of Alignment in SEQ ID NO 340: from 22 to 100
  
- Alignment No. 3073
- gi No. 121998
- % Identity 76.3
- Alignment Length 80
- Location of Alignment in SEQ ID NO 340: from 21 to 100
  
- Alignment No. 3074
- gi No. 121999
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3075
- gi No. 122000

- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3076
- gi No. 122001
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3077
- gi No. 122002
- % Identity 77.8
- Alignment Length 82
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3078
- gi No. 122003
- % Identity 72.2
- Alignment Length 79
- Location of Alignment in SEQ ID NO 340: from 23 to 101
  
- Alignment No. 3079
- gi No. 122004
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3080
- gi No. 122005
- % Identity 75.3
- Alignment Length 82
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3081
- gi No. 122006
- % Identity 74.4
- Alignment Length 78
- Location of Alignment in SEQ ID NO 340: from 23 to 100
  
- Alignment No. 3082
- gi No. 122007
- % Identity 71.3
- Alignment Length 88
- Location of Alignment in SEQ ID NO 340: from 19 to 101
  
- Alignment No. 3083
- gi No. 122008
- % Identity 77.8
- Alignment Length 82
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3084
- gi No. 122009
- % Identity 76.3
- Alignment Length 80
- Location of Alignment in SEQ ID NO 340: from 22 to 101
  
- Alignment No. 3085
- gi No. 122010
- % Identity 73.8

- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 22 to 101
- Alignment No. 3086
- gi No. 122011
- % Identity 77.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 22 to 101
- Alignment No. 3087
- gi No. 122012
- % Identity 74.1
- Alignment Length 82
- Location of Alignment in SEQ ID NO 340: from 21 to 101
- Alignment No. 3088
- gi No. 122013
- % Identity 77.8
- Alignment Length 82
- Location of Alignment in SEQ ID NO 340: from 21 to 101
- Alignment No. 3089
- gi No. 1228074
- % Identity 80.9
- Alignment Length 47
- Location of Alignment in SEQ ID NO 340: from 55 to 101
- Alignment No. 3090
- gi No. 1458139
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
- Alignment No. 3091
- gi No. 1458140
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
- Alignment No. 3092
- gi No. 1493827
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
- Alignment No. 3093
- gi No. 157616
- % Identity 76.6
- Alignment Length 78
- Location of Alignment in SEQ ID NO 340: from 21 to 97
- Alignment No. 3094
- gi No. 161362
- % Identity 74.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
- Alignment No. 3095
- gi No. 1708101
- % Identity 74.1
- Alignment Length 81

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- Location of Alignment in SEQ ID NO 340: from 21 to 101
- Alignment No. 3096
- gi No. 1708102
- % Identity 84
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
- Alignment No. 3097
- gi No. 171031
- % Identity 76.6
- Alignment Length 64
- Location of Alignment in SEQ ID NO 340: from 38 to 101
- Alignment No. 3098
- gi No. 1731923
- % Identity 76.9
- Alignment Length 65
- Location of Alignment in SEQ ID NO 340: from 38 to 102
- Alignment No. 3099
- gi No. 1749798
- % Identity 75.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
- Alignment No. 3100
- gi No. 1842152
- % Identity 76.5
- Alignment Length 82
- Location of Alignment in SEQ ID NO 340: from 21 to 101
- Alignment No. 3101
- gi No. 1922944
- % Identity 84.3
- Alignment Length 83
- Location of Alignment in SEQ ID NO 340: from 22 to 101
- Alignment No. 3102
- gi No. 2072004
- % Identity 72.8
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
- Alignment No. 3103
- gi No. 2104499
- % Identity 74.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
- Alignment No. 3104
- gi No. 2118980
- % Identity 71.9
- Alignment Length 64
- Location of Alignment in SEQ ID NO 340: from 21 to 84
- Alignment No. 3105
- gi No. 2118981
- % Identity 71.2
- Alignment Length 52
- Location of Alignment in SEQ ID NO 340: from 21 to 72

- Alignment No. 3106
- gi No. 2118986
- % Identity 84
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3107
- gi No. 2130104
- % Identity 75.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3108
- gi No. 2130105
- % Identity 93.8
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3109
- gi No. 2134351
- % Identity 75.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3110
- gi No. 2135353
- % Identity 72.4
- Alignment Length 58
- Location of Alignment in SEQ ID NO 340: from 21 to 78
  
- Alignment No. 3111
- gi No. 2144739
- % Identity 72.8
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3112
- gi No. 2317760
- % Identity 90.2
- Alignment Length 82
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3113
- gi No. 2564109
- % Identity 72.8
- Alignment Length 82
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3114
- gi No. 2632155
- % Identity 75.3
- Alignment Length 82
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3115
- gi No. 3036786
- % Identity 75.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101

- Alignment No. 3116
- gi No. 3204129
- % Identity 83.5
- Alignment Length 79
- Location of Alignment in SEQ ID NO 340: from 23 to 101
  
- Alignment No. 3117
- gi No. 3242067
- % Identity 71.1
- Alignment Length 84
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3118
- gi No. 3269284
- % Identity 95.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3119
- gi No. 3745760
- % Identity 75.3
- Alignment Length 77
- Location of Alignment in SEQ ID NO 340: from 25 to 101
  
- Alignment No. 3120
- gi No. 3776566
- % Identity 85.5
- Alignment Length 83
- Location of Alignment in SEQ ID NO 340: from 22 to 101
  
- Alignment No. 3121
- gi No. 3875130
- % Identity 76.3
- Alignment Length 80
- Location of Alignment in SEQ ID NO 340: from 21 to 100
  
- Alignment No. 3122
- gi No. 399852
- % Identity 71.6
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3123
- gi No. 4139867
- % Identity 82.8
- Alignment Length 64
- Location of Alignment in SEQ ID NO 340: from 38 to 101
  
- Alignment No. 3124
- gi No. 4504239
- % Identity 75.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3125
- gi No. 4504245
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3126



- gi No. 4504247
- % Identity 72.8
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3127
- gi No. 4504251
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3128
- gi No. 4504253
- % Identity 77.8
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3129
- gi No. 462229
- % Identity 76.6
- Alignment Length 77
- Location of Alignment in SEQ ID NO 340: from 25 to 101
  
- Alignment No. 3130
- gi No. 462230
- % Identity 75.3
- Alignment Length 77
- Location of Alignment in SEQ ID NO 340: from 25 to 101
  
- Alignment No. 3131
- gi No. 462231
- % Identity 75.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3132
- gi No. 462233
- % Identity 74.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3133
- gi No. 462234
- % Identity 81.9
- Alignment Length 83
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3134
- gi No. 578471
- % Identity 76.5
- Alignment Length 51
- Location of Alignment in SEQ ID NO 340: from 51 to 101
  
- Alignment No. 3135
- gi No. 631691
- % Identity 75.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3136
- gi No. 685035

- % Identity 73.2
- Alignment Length 82
- Location of Alignment in SEQ ID NO 340: from 20 to 101
  
- Alignment No. 3137
- gi No. 70684
- % Identity 75
- Alignment Length 80
- Location of Alignment in SEQ ID NO 340: from 22 to 101
  
- Alignment No. 3138
- gi No. 70686
- % Identity 72.5
- Alignment Length 80
- Location of Alignment in SEQ ID NO 340: from 22 to 101
  
- Alignment No. 3139
- gi No. 70687
- % Identity 76.3
- Alignment Length 80
- Location of Alignment in SEQ ID NO 340: from 22 to 101
  
- Alignment No. 3140
- gi No. 70688
- % Identity 76.3
- Alignment Length 80
- Location of Alignment in SEQ ID NO 340: from 22 to 101
  
- Alignment No. 3141
- gi No. 70690
- % Identity 74.1
- Alignment Length 82
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3142
- gi No. 70693
- % Identity 77.5
- Alignment Length 80
- Location of Alignment in SEQ ID NO 340: from 22 to 101
  
- Alignment No. 3143
- gi No. 70694
- % Identity 76.3
- Alignment Length 80
- Location of Alignment in SEQ ID NO 340: from 22 to 101
  
- Alignment No. 3144
- gi No. 70703
- % Identity 74.1
- Alignment Length 82
- Location of Alignment in SEQ ID NO 340: from 21 to 101
  
- Alignment No. 3145
- gi No. 729669
- % Identity 76.9
- Alignment Length 78
- Location of Alignment in SEQ ID NO 340: from 23 to 100
  
- Alignment No. 3146
- gi No. 729671
- % Identity 73.2

- (B) Polypeptide Sequence

- (C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- #### (D) Related Amino Acid Sequences

- ```
- Alignment No. 3152
- gi No. 1076776
- % Identity 75.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81

- Alignment No. 3153
- gi No. 1076777
- % Identity 74.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81

- Alignment No. 3154
- gi No. 1154954
- % Identity 93.8
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81

- Alignment No. 3155
- gi No. 1161302
- % Identity 74.1
- Alignment Length 81
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- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3156
- gi No. 1170158
- % Identity 72.1
- Alignment Length 68
- Location of Alignment in SEQ ID NO 341: from 1 to 68
- Alignment No. 3157
- gi No. 121961
- % Identity 72.8
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3158
- gi No. 121962
- % Identity 71.6
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3159
- gi No. 121963
- % Identity 74.1
- Alignment Length 82
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3160
- gi No. 121964
- % Identity 75.3
- Alignment Length 77
- Location of Alignment in SEQ ID NO 341: from 5 to 81
- Alignment No. 3161
- gi No. 121965
- % Identity 80.3
- Alignment Length 71
- Location of Alignment in SEQ ID NO 341: from 11 to 81
- Alignment No. 3162
- gi No. 121966
- % Identity 75.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3163
- gi No. 121968
- % Identity 74.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3164
- gi No. 121971
- % Identity 74.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3165
- gi No. 121972
- % Identity 74.1
- Alignment Length 82
- Location of Alignment in SEQ ID NO 341: from 1 to 81

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- Alignment No. 3166
- gi No. 121973
- % Identity 75.3
- Alignment Length 77
- Location of Alignment in SEQ ID NO 341: from 5 to 81
  
- Alignment No. 3167
- gi No. 121974
- % Identity 76.3
- Alignment Length 76
- Location of Alignment in SEQ ID NO 341: from 6 to 81
  
- Alignment No. 3168
- gi No. 121977
- % Identity 80.3
- Alignment Length 66
- Location of Alignment in SEQ ID NO 341: from 16 to 81
  
- Alignment No. 3169
- gi No. 121978
- % Identity 74.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3170
- gi No. 121979
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3171
- gi No. 121980
- % Identity 82.1
- Alignment Length 67
- Location of Alignment in SEQ ID NO 341: from 15 to 81
  
- Alignment No. 3172
- gi No. 121981
- % Identity 82.7
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3173
- gi No. 121982
- % Identity 73.8
- Alignment Length 84
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3174
- gi No. 121983
- % Identity 71.8
- Alignment Length 85
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3175
- gi No. 121984
- % Identity 74.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81

- Alignment No. 3176
- gi No. 121985
- % Identity 84
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3177
- gi No. 121987
- % Identity 77.8
- Alignment Length 82
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3178
- gi No. 121993
- % Identity 77.8
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3179
- gi No. 121996
- % Identity 75.3
- Alignment Length 82
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3180
- gi No. 121997
- % Identity 77.2
- Alignment Length 79
- Location of Alignment in SEQ ID NO 341: from 2 to 80
  
- Alignment No. 3181
- gi No. 121998
- % Identity 76.3
- Alignment Length 80
- Location of Alignment in SEQ ID NO 341: from 1 to 80
  
- Alignment No. 3182
- gi No. 121999
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3183
- gi No. 122000
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3184
- gi No. 122001
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3185
- gi No. 122002
- % Identity 77.8
- Alignment Length 82
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3186

- gi No. 122003
- % Identity 72.2
- Alignment Length 79
- Location of Alignment in SEQ ID NO 341: from 3 to 81
  
- Alignment No. 3187
- gi No. 122004
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3188
- gi No. 122005
- % Identity 75.3
- Alignment Length 82
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3189
- gi No. 122006
- % Identity 74.4
- Alignment Length 78
- Location of Alignment in SEQ ID NO 341: from 3 to 80
  
- Alignment No. 3190
- gi No. 122007
- % Identity 71.3
- Alignment Length 88
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3191
- gi No. 122008
- % Identity 77.8
- Alignment Length 82
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3192
- gi No. 122009
- % Identity 76.3
- Alignment Length 80
- Location of Alignment in SEQ ID NO 341: from 2 to 81
  
- Alignment No. 3193
- gi No. 122010
- % Identity 73.8
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 2 to 81
  
- Alignment No. 3194
- gi No. 122011
- % Identity 77.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 2 to 81
  
- Alignment No. 3195
- gi No. 122012
- % Identity 74.1
- Alignment Length 82
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3196
- gi No. 122013

- % Identity 77.8
- Alignment Length 82
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3197
- gi No. 1228074
- % Identity 80.9
- Alignment Length 47
- Location of Alignment in SEQ ID NO 341: from 35 to 81
  
- Alignment No. 3198
- gi No. 1458139
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3199
- gi No. 1458140
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3200
- gi No. 1493827
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3201
- gi No. 157616
- % Identity 76.6
- Alignment Length 78
- Location of Alignment in SEQ ID NO 341: from 1 to 77
  
- Alignment No. 3202
- gi No. 161362
- % Identity 74.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3203
- gi No. 1708101
- % Identity 74.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3204
- gi No. 1708102
- % Identity 84
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3205
- gi No. 171031
- % Identity 76.6
- Alignment Length 64
- Location of Alignment in SEQ ID NO 341: from 18 to 81
  
- Alignment No. 3206
- gi No. 1731923
- % Identity 76.9



- Alignment Length 65
- Location of Alignment in SEQ ID NO 341: from 18 to 82
- Alignment No. 3207
- gi No. 1749798
- % Identity 75.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3208
- gi No. 1842152
- % Identity 76.5
- Alignment Length 82
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3209
- gi No. 1922944
- % Identity 84.3
- Alignment Length 83
- Location of Alignment in SEQ ID NO 341: from 2 to 81
- Alignment No. 3210
- gi No. 2072004
- % Identity 72.8
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3211
- gi No. 2104499
- % Identity 74.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3212
- gi No. 2118980
- % Identity 71.9
- Alignment Length 64
- Location of Alignment in SEQ ID NO 341: from 1 to 64
- Alignment No. 3213
- gi No. 2118981
- % Identity 71.2
- Alignment Length 52
- Location of Alignment in SEQ ID NO 341: from 1 to 52
- Alignment No. 3214
- gi No. 2118986
- % Identity 84
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3215
- gi No. 2130104
- % Identity 75.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3216
- gi No. 2130105
- % Identity 93.8
- Alignment Length 81

- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3217
- gi No. 2134351
- % Identity 75.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3218
- gi No. 2135353
- % Identity 72.4
- Alignment Length 58
- Location of Alignment in SEQ ID NO 341: from 1 to 58
- Alignment No. 3219
- gi No. 2144739
- % Identity 72.8
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3220
- gi No. 2317760
- % Identity 90.2
- Alignment Length 82
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3221
- gi No. 2564109
- % Identity 72.8
- Alignment Length 82
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3222
- gi No. 2632155
- % Identity 75.3
- Alignment Length 82
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3223
- gi No. 3036786
- % Identity 75.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3224
- gi No. 3204129
- % Identity 83.5
- Alignment Length 79
- Location of Alignment in SEQ ID NO 341: from 3 to 81
- Alignment No. 3225
- gi No. 3242067
- % Identity 71.1
- Alignment Length 84
- Location of Alignment in SEQ ID NO 341: from 1 to 81
- Alignment No. 3226
- gi No. 3269284
- % Identity 95.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81

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- Alignment No. 3227
- gi No. 3745760
- % Identity 75.3
- Alignment Length 77
- Location of Alignment in SEQ ID NO 341: from 5 to 81
  
- Alignment No. 3228
- gi No. 3776566
- % Identity 85.5
- Alignment Length 83
- Location of Alignment in SEQ ID NO 341: from 2 to 81
  
- Alignment No. 3229
- gi No. 3875130
- % Identity 76.3
- Alignment Length 80
- Location of Alignment in SEQ ID NO 341: from 1 to 80
  
- Alignment No. 3230
- gi No. 399852
- % Identity 71.6
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3231
- gi No. 4139867
- % Identity 82.8
- Alignment Length 64
- Location of Alignment in SEQ ID NO 341: from 18 to 81
  
- Alignment No. 3232
- gi No. 4504239
- % Identity 75.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3233
- gi No. 4504245
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3234
- gi No. 4504247
- % Identity 72.8
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3235
- gi No. 4504251
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3236
- gi No. 4504253
- % Identity 77.8
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81

- Alignment No. 3237
- gi No. 462229
- % Identity 76.6
- Alignment Length 77
- Location of Alignment in SEQ ID NO 341: from 5 to 81
  
- Alignment No. 3238
- gi No. 462230
- % Identity 75.3
- Alignment Length 77
- Location of Alignment in SEQ ID NO 341: from 5 to 81
  
- Alignment No. 3239
- gi No. 462231
- % Identity 75.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3240
- gi No. 462233
- % Identity 74.1
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3241
- gi No. 462234
- % Identity 81.9
- Alignment Length 83
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3242
- gi No. 578471
- % Identity 76.5
- Alignment Length 51
- Location of Alignment in SEQ ID NO 341: from 31 to 81
  
- Alignment No. 3243
- gi No. 631691
- % Identity 75.3
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3244
- gi No. 685035
- % Identity 73.2
- Alignment Length 82
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3245
- gi No. 70684
- % Identity 75
- Alignment Length 80
- Location of Alignment in SEQ ID NO 341: from 2 to 81
  
- Alignment No. 3246
- gi No. 70686
- % Identity 72.5
- Alignment Length 80
- Location of Alignment in SEQ ID NO 341: from 2 to 81
  
- Alignment No. 3247

- gi No. 70687
- % Identity 76.3
- Alignment Length 80
- Location of Alignment in SEQ ID NO 341: from 2 to 81
  
- Alignment No. 3248
- gi No. 70688
- % Identity 76.3
- Alignment Length 80
- Location of Alignment in SEQ ID NO 341: from 2 to 81
  
- Alignment No. 3249
- gi No. 70690
- % Identity 74.1
- Alignment Length 82
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3250
- gi No. 70693
- % Identity 77.5
- Alignment Length 80
- Location of Alignment in SEQ ID NO 341: from 2 to 81
  
- Alignment No. 3251
- gi No. 70694
- % Identity 76.3
- Alignment Length 80
- Location of Alignment in SEQ ID NO 341: from 2 to 81
  
- Alignment No. 3252
- gi No. 70703
- % Identity 74.1
- Alignment Length 82
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3253
- gi No. 729669
- % Identity 76.9
- Alignment Length 78
- Location of Alignment in SEQ ID NO 341: from 3 to 80
  
- Alignment No. 3254
- gi No. 729671
- % Identity 73.2
- Alignment Length 82
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3255
- gi No. 729672
- % Identity 76.3
- Alignment Length 80
- Location of Alignment in SEQ ID NO 341: from 1 to 80
  
- Alignment No. 3256
- gi No. 8067
- % Identity 73.8
- Alignment Length 66
- Location of Alignment in SEQ ID NO 341: from 1 to 65
  
- Alignment No. 3257
- gi No. 86292

- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81
  
- Alignment No. 3258
- gi No. 86296
- % Identity 76.5
- Alignment Length 81
- Location of Alignment in SEQ ID NO 341: from 1 to 81

Maximum Length Sequence corresponding to clone ID 101668

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 342
- Ceres seq\_id 1498320

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 343
- Ceres seq\_id 1498321
- Location of start within SEQ ID NO 342: at 88 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3259
- Pectinesterase
- Location within SEQ ID NO 343: from 76 to 351 aa.

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 344
- Ceres seq\_id 1498322
- Location of start within SEQ ID NO 342: at 121 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3260
- Pectinesterase
- Location within SEQ ID NO 344: from 65 to 340 aa.

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 345
- Ceres seq\_id 1498323
- Location of start within SEQ ID NO 342: at 145 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3261
- Pectinesterase
- Location within SEQ ID NO 345: from 57 to 332 aa.

(D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 102351

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 346
- Ceres seq\_id 1498324

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 347
- Ceres seq\_id 1498325
- Location of start within SEQ ID NO 346: at 149 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 3262
- gi No. 128843
- % Identity 72
- Alignment Length 26
- Location of Alignment in SEQ ID NO 347: from 285 to 309
  
- Alignment No. 3263
- gi No. 128844
- % Identity 72
- Alignment Length 26
- Location of Alignment in SEQ ID NO 347: from 285 to 309
  
- Alignment No. 3264
- gi No. 1330342
- % Identity 70
- Alignment Length 20
- Location of Alignment in SEQ ID NO 347: from 279 to 298
  
- Alignment No. 3265
- gi No. 1438951
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 347: from 285 to 303
  
- Alignment No. 3266
- gi No. 2245037
- % Identity 73.5
- Alignment Length 329
- Location of Alignment in SEQ ID NO 347: from 16 to 328
  
- Alignment No. 3267
- gi No. 92559
- % Identity 72
- Alignment Length 26
- Location of Alignment in SEQ ID NO 347: from 285 to 309

Maximum Length Sequence corresponding to clone ID 102545

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 348
- Ceres seq\_id 1498326

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 349
- Ceres seq\_id 1498327
- Location of start within SEQ ID NO 348: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3268
- Dehydrins
- Location within SEQ ID NO 349: from 38 to 106 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3269
- gi No. 1169277
- % Identity 74.6
- Alignment Length 67
- Location of Alignment in SEQ ID NO 349: from 37 to 103

- Alignment No. 3270
- gi No. 1169280
- % Identity 98.6
- Alignment Length 70
- Location of Alignment in SEQ ID NO 349: from 37 to 106
  
- Alignment No. 3271
- gi No. 2129637
- % Identity 97.1
- Alignment Length 70
- Location of Alignment in SEQ ID NO 349: from 37 to 106
  
- Alignment No. 3272
- gi No. 99681
- % Identity 98
- Alignment Length 99
- Location of Alignment in SEQ ID NO 349: from 8 to 106

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 350
- Ceres seq\_id 1498328
- Location of start within SEQ ID NO 348: at 109 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3273
- Dehydrins
- Location within SEQ ID NO 350: from 2 to 70 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3274
- gi No. 1169277
- % Identity 74.6
- Alignment Length 67
- Location of Alignment in SEQ ID NO 350: from 1 to 67
  
- Alignment No. 3275
- gi No. 1169280
- % Identity 98.6
- Alignment Length 70
- Location of Alignment in SEQ ID NO 350: from 1 to 70
  
- Alignment No. 3276
- gi No. 2129637
- % Identity 97.1
- Alignment Length 70
- Location of Alignment in SEQ ID NO 350: from 1 to 70
  
- Alignment No. 3277
- gi No. 99681
- % Identity 98
- Alignment Length 99
- Location of Alignment in SEQ ID NO 350: from 1 to 70

Maximum Length Sequence corresponding to clone ID 102806

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 351
- Ceres seq\_id 1498329

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 352



- Ceres seq\_id 1498330
- Location of start within SEQ ID NO 351: at 113 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3278
- Myb-like DNA-binding domain
- Location within SEQ ID NO 352: from 97 to 146 aa.
- Alignment No. 3279
- Zinc finger, CCHC class
- Location within SEQ ID NO 352: from 3 to 20 aa.

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 353
- Ceres seq\_id 1498331
- Location of start within SEQ ID NO 351: at 233 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3280
- Myb-like DNA-binding domain
- Location within SEQ ID NO 353: from 57 to 106 aa.

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 354
- Ceres seq\_id 1498332
- Location of start within SEQ ID NO 351: at 425 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3281
- Myb-like DNA-binding domain
- Location within SEQ ID NO 354: from 1 to 42 aa.

(D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 103630

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 355
- Ceres seq\_id 1498333

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 356
- Ceres seq\_id 1498334
- Location of start within SEQ ID NO 355: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3282
- 60s Acidic ribosomal protein
- Location within SEQ ID NO 356: from 88 to 138 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3283
- gi No. 1150834
- % Identity 71.4
- Alignment Length 21

- Location of Alignment in SEQ ID NO 356: from 89 to 109
- Alignment No. 3284
- gi No. 1169890
- % Identity 70.8
- Alignment Length 24
- Location of Alignment in SEQ ID NO 356: from 89 to 112
- Alignment No. 3285
- gi No. 1276971
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 89 to 110
- Alignment No. 3286
- gi No. 1330342
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 89 to 110
- Alignment No. 3287
- gi No. 1330342
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 89 to 110
- Alignment No. 3288
- gi No. 1628463
- % Identity 71.4
- Alignment Length 21
- Location of Alignment in SEQ ID NO 356: from 90 to 110
- Alignment No. 3289
- gi No. 1628463
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 89 to 110
- Alignment No. 3290
- gi No. 1628463
- % Identity 70.8
- Alignment Length 24
- Location of Alignment in SEQ ID NO 356: from 89 to 112
- Alignment No. 3291
- gi No. 2047353
- % Identity 80
- Alignment Length 20
- Location of Alignment in SEQ ID NO 356: from 91 to 110
- Alignment No. 3292
- gi No. 2047353
- % Identity 77.8
- Alignment Length 27
- Location of Alignment in SEQ ID NO 356: from 89 to 115
- Alignment No. 3293
- gi No. 2047353
- % Identity 75.9
- Alignment Length 29
- Location of Alignment in SEQ ID NO 356: from 89 to 115

- Alignment No. 3294
- gi No. 2388805
- % Identity 71.4
- Alignment Length 21
- Location of Alignment in SEQ ID NO 356: from 89 to 109
  
- Alignment No. 3295
- gi No. 2388805
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 89 to 110
  
- Alignment No. 3296
- gi No. 2388805
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 89 to 110
  
- Alignment No. 3297
- gi No. 2499130
- % Identity 71.4
- Alignment Length 21
- Location of Alignment in SEQ ID NO 356: from 89 to 109
  
- Alignment No. 3298
- gi No. 2961382
- % Identity 71.4
- Alignment Length 21
- Location of Alignment in SEQ ID NO 356: from 90 to 110
  
- Alignment No. 3299
- gi No. 2961382
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 89 to 110
  
- Alignment No. 3300
- gi No. 2961382
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 89 to 110
  
- Alignment No. 3301
- gi No. 2961382
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 89 to 110
  
- Alignment No. 3302
- gi No. 2961382
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 89 to 110
  
- Alignment No. 3303
- gi No. 2961382
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 89 to 110

- Alignment No. 3304
- gi No. 2961382
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 89 to 110
  
- Alignment No. 3305
- gi No. 2961382
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 89 to 110
  
- Alignment No. 3306
- gi No. 2961382
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 89 to 110
  
- Alignment No. 3307
- gi No. 322647
- % Identity 77.3
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 88 to 109
  
- Alignment No. 3308
- gi No. 322647
- % Identity 70.8
- Alignment Length 24
- Location of Alignment in SEQ ID NO 356: from 89 to 111
  
- Alignment No. 3309
- gi No. 322647
- % Identity 71.4
- Alignment Length 28
- Location of Alignment in SEQ ID NO 356: from 89 to 116
  
- Alignment No. 3310
- gi No. 3875441
- % Identity 76.9
- Alignment Length 13
- Location of Alignment in SEQ ID NO 356: from 117 to 129
  
- Alignment No. 3311
- gi No. 3875441
- % Identity 71.4
- Alignment Length 14
- Location of Alignment in SEQ ID NO 356: from 117 to 130
  
- Alignment No. 3312
- gi No. 3875441
- % Identity 71.4
- Alignment Length 21
- Location of Alignment in SEQ ID NO 356: from 89 to 109
  
- Alignment No. 3313
- gi No. 3875441
- % Identity 71.4
- Alignment Length 21
- Location of Alignment in SEQ ID NO 356: from 90 to 110
  
- Alignment No. 3314

- gi No. 3875441
- % Identity 71.4
- Alignment Length 21
- Location of Alignment in SEQ ID NO 356: from 90 to 110
  
- Alignment No. 3315
- gi No. 3875441
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 89 to 110
  
- Alignment No. 3316
- gi No. 3875538
- % Identity 70.8
- Alignment Length 24
- Location of Alignment in SEQ ID NO 356: from 89 to 109
  
- Alignment No. 3317
- gi No. 3875538
- % Identity 76
- Alignment Length 25
- Location of Alignment in SEQ ID NO 356: from 89 to 113
  
- Alignment No. 3318
- gi No. 3875538
- % Identity 73.1
- Alignment Length 26
- Location of Alignment in SEQ ID NO 356: from 89 to 114
  
- Alignment No. 3319
- gi No. 421936
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 89 to 110
  
- Alignment No. 3320
- gi No. 4539307
- % Identity 83.3
- Alignment Length 120
- Location of Alignment in SEQ ID NO 356: from 20 to 139
  
- Alignment No. 3321
- gi No. 4678224
- % Identity 77.3
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 88 to 109
  
- Alignment No. 3322
- gi No. 4678224
- % Identity 73.9
- Alignment Length 23
- Location of Alignment in SEQ ID NO 356: from 88 to 110
  
- Alignment No. 3323
- gi No. 4678224
- % Identity 70.4
- Alignment Length 27
- Location of Alignment in SEQ ID NO 356: from 89 to 115
  
- Alignment No. 3324
- gi No. 4895201

- % Identity 71.4
- Alignment Length 21
- Location of Alignment in SEQ ID NO 356: from 90 to 110
  
- Alignment No. 3325
- gi No. 4895201
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 89 to 110
  
- Alignment No. 3326
- gi No. 4895201
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 356: from 89 to 110
  
- Alignment No. 3327
- gi No. 642484
- % Identity 75
- Alignment Length 24
- Location of Alignment in SEQ ID NO 356: from 89 to 112
  
- Alignment No. 3328
- gi No. 81627
- % Identity 71.4
- Alignment Length 21
- Location of Alignment in SEQ ID NO 356: from 89 to 109
  
- Alignment No. 3329
- gi No. 81627
- % Identity 70.8
- Alignment Length 24
- Location of Alignment in SEQ ID NO 356: from 89 to 110
  
- Alignment No. 3330
- gi No. 81627
- % Identity 76
- Alignment Length 26
- Location of Alignment in SEQ ID NO 356: from 89 to 113

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 357
- Ceres seq\_id 1498335
- Location of start within SEQ ID NO 355: at 58 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3331
- 60s Acidic ribosomal protein
- Location within SEQ ID NO 357: from 69 to 119 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3332
- gi No. 1150834
- % Identity 71.4
- Alignment Length 21
- Location of Alignment in SEQ ID NO 357: from 70 to 90
  
- Alignment No. 3333
- gi No. 1169890
- % Identity 70.8

- Alignment Length 24
- Location of Alignment in SEQ ID NO 357: from 70 to 93
- Alignment No. 3334
- gi No. 1276971
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 70 to 91
- Alignment No. 3335
- gi No. 1330342
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 70 to 91
- Alignment No. 3336
- gi No. 1330342
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 70 to 91
- Alignment No. 3337
- gi No. 1628463
- % Identity 71.4
- Alignment Length 21
- Location of Alignment in SEQ ID NO 357: from 71 to 91
- Alignment No. 3338
- gi No. 1628463
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 70 to 91
- Alignment No. 3339
- gi No. 1628463
- % Identity 70.8
- Alignment Length 24
- Location of Alignment in SEQ ID NO 357: from 70 to 93
- Alignment No. 3340
- gi No. 2047353
- % Identity 80
- Alignment Length 20
- Location of Alignment in SEQ ID NO 357: from 72 to 91
- Alignment No. 3341
- gi No. 2047353
- % Identity 77.8
- Alignment Length 27
- Location of Alignment in SEQ ID NO 357: from 70 to 96
- Alignment No. 3342
- gi No. 2047353
- % Identity 75.9
- Alignment Length 29
- Location of Alignment in SEQ ID NO 357: from 70 to 96
- Alignment No. 3343
- gi No. 2388805
- % Identity 71.4
- Alignment Length 21

- Location of Alignment in SEQ ID NO 357: from 70 to 90
- Alignment No. 3344
- gi No. 2388805
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 70 to 91
- Alignment No. 3345
- gi No. 2388805
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 70 to 91
- Alignment No. 3346
- gi No. 2499130
- % Identity 71.4
- Alignment Length 21
- Location of Alignment in SEQ ID NO 357: from 70 to 90
- Alignment No. 3347
- gi No. 2961382
- % Identity 71.4
- Alignment Length 21
- Location of Alignment in SEQ ID NO 357: from 71 to 91
- Alignment No. 3348
- gi No. 2961382
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 70 to 91
- Alignment No. 3349
- gi No. 2961382
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 70 to 91
- Alignment No. 3350
- gi No. 2961382
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 70 to 91
- Alignment No. 3351
- gi No. 2961382
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 70 to 91
- Alignment No. 3352
- gi No. 2961382
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 70 to 91
- Alignment No. 3353
- gi No. 2961382
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 70 to 91



- Alignment No. 3354
- gi No. 2961382
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 70 to 91
  
- Alignment No. 3355
- gi No. 2961382
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 70 to 91
  
- Alignment No. 3356
- gi No. 322647
- % Identity 77.3
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 69 to 90
  
- Alignment No. 3357
- gi No. 322647
- % Identity 70.8
- Alignment Length 24
- Location of Alignment in SEQ ID NO 357: from 70 to 92
  
- Alignment No. 3358
- gi No. 322647
- % Identity 71.4
- Alignment Length 28
- Location of Alignment in SEQ ID NO 357: from 70 to 97
  
- Alignment No. 3359
- gi No. 3875441
- % Identity 76.9
- Alignment Length 13
- Location of Alignment in SEQ ID NO 357: from 98 to 110
  
- Alignment No. 3360
- gi No. 3875441
- % Identity 71.4
- Alignment Length 14
- Location of Alignment in SEQ ID NO 357: from 98 to 111
  
- Alignment No. 3361
- gi No. 3875441
- % Identity 71.4
- Alignment Length 21
- Location of Alignment in SEQ ID NO 357: from 70 to 90
  
- Alignment No. 3362
- gi No. 3875441
- % Identity 71.4
- Alignment Length 21
- Location of Alignment in SEQ ID NO 357: from 71 to 91
  
- Alignment No. 3363
- gi No. 3875441
- % Identity 71.4
- Alignment Length 21
- Location of Alignment in SEQ ID NO 357: from 71 to 91

- Alignment No. 3364
- gi No. 3875441
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 70 to 91
- Alignment No. 3365
- gi No. 3875538
- % Identity 70.8
- Alignment Length 24
- Location of Alignment in SEQ ID NO 357: from 70 to 90
- Alignment No. 3366
- gi No. 3875538
- % Identity 76
- Alignment Length 25
- Location of Alignment in SEQ ID NO 357: from 70 to 94
- Alignment No. 3367
- gi No. 3875538
- % Identity 73.1
- Alignment Length 26
- Location of Alignment in SEQ ID NO 357: from 70 to 95
- Alignment No. 3368
- gi No. 421936
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 70 to 91
- Alignment No. 3369
- gi No. 4539307
- % Identity 83.3
- Alignment Length 120
- Location of Alignment in SEQ ID NO 357: from 1 to 120
- Alignment No. 3370
- gi No. 4678224
- % Identity 77.3
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 69 to 90
- Alignment No. 3371
- gi No. 4678224
- % Identity 73.9
- Alignment Length 23
- Location of Alignment in SEQ ID NO 357: from 69 to 91
- Alignment No. 3372
- gi No. 4678224
- % Identity 70.4
- Alignment Length 27
- Location of Alignment in SEQ ID NO 357: from 70 to 96
- Alignment No. 3373
- gi No. 4895201
- % Identity 71.4
- Alignment Length 21
- Location of Alignment in SEQ ID NO 357: from 71 to 91
- Alignment No. 3374

- gi No. 4895201
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 70 to 91
  
- Alignment No. 3375
- gi No. 4895201
- % Identity 72.7
- Alignment Length 22
- Location of Alignment in SEQ ID NO 357: from 70 to 91
  
- Alignment No. 3376
- gi No. 642484
- % Identity 75
- Alignment Length 24
- Location of Alignment in SEQ ID NO 357: from 70 to 93
  
- Alignment No. 3377
- gi No. 81627
- % Identity 71.4
- Alignment Length 21
- Location of Alignment in SEQ ID NO 357: from 70 to 90
  
- Alignment No. 3378
- gi No. 81627
- % Identity 70.8
- Alignment Length 24
- Location of Alignment in SEQ ID NO 357: from 70 to 91
  
- Alignment No. 3379
- gi No. 81627
- % Identity 76
- Alignment Length 26
- Location of Alignment in SEQ ID NO 357: from 70 to 94

Maximum Length Sequence corresponding to clone ID 104004

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 358
- Ceres seq\_id 1498336

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 359
- Ceres seq\_id 1498337
- Location of start within SEQ ID NO 358: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 3380
- gi No. 3080418
- % Identity 96.5
- Alignment Length 143
- Location of Alignment in SEQ ID NO 359: from 16 to 158

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 360
- Ceres seq\_id 1498338
- Location of start within SEQ ID NO 358: at 35 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 3381
- gi No. 3080418
- % Identity 96.5
- Alignment Length 143
- Location of Alignment in SEQ ID NO 360: from 5 to 147

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 361
- Ceres seq\_id 1498339
- Location of start within SEQ ID NO 358: at 44 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 3382
- gi No. 3080418
- % Identity 96.5
- Alignment Length 143
- Location of Alignment in SEQ ID NO 361: from 2 to 144

Maximum Length Sequence corresponding to clone ID 105961

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 362
- Ceres seq\_id 1498348

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 363
- Ceres seq\_id 1498349
- Location of start within SEQ ID NO 362: at 125 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3383
- 14-3-3 proteins
- Location within SEQ ID NO 363: from 5 to 240 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3384
- gi No. 100554
- % Identity 70
- Alignment Length 257
- Location of Alignment in SEQ ID NO 363: from 1 to 253
  
- Alignment No. 3385
- gi No. 1076393
- % Identity 70.6
- Alignment Length 248
- Location of Alignment in SEQ ID NO 363: from 5 to 250
  
- Alignment No. 3386
- gi No. 1085462
- % Identity 75
- Alignment Length 28
- Location of Alignment in SEQ ID NO 363: from 117 to 144
  
- Alignment No. 3387
- gi No. 112684
- % Identity 70
- Alignment Length 257
- Location of Alignment in SEQ ID NO 363: from 1 to 253
  
- Alignment No. 3388

- gi No. 112685
- % Identity 78.7
- Alignment Length 61
- Location of Alignment in SEQ ID NO 363: from 185 to 245
  
- Alignment No. 3389
- gi No. 1168192
- % Identity 75.6
- Alignment Length 242
- Location of Alignment in SEQ ID NO 363: from 4 to 245
  
- Alignment No. 3390
- gi No. 1168198
- % Identity 71.1
- Alignment Length 253
- Location of Alignment in SEQ ID NO 363: from 3 to 254
  
- Alignment No. 3391
- gi No. 1168200
- % Identity 70.6
- Alignment Length 248
- Location of Alignment in SEQ ID NO 363: from 5 to 250
  
- Alignment No. 3392
- gi No. 1172821
- % Identity 70.7
- Alignment Length 251
- Location of Alignment in SEQ ID NO 363: from 1 to 247
  
- Alignment No. 3393
- gi No. 1345592
- % Identity 100
- Alignment Length 254
- Location of Alignment in SEQ ID NO 363: from 1 to 254
  
- Alignment No. 3394
- gi No. 1364072
- % Identity 81
- Alignment Length 21
- Location of Alignment in SEQ ID NO 363: from 195 to 215
  
- Alignment No. 3395
- gi No. 1519251
- % Identity 70.9
- Alignment Length 247
- Location of Alignment in SEQ ID NO 363: from 5 to 249
  
- Alignment No. 3396
- gi No. 168548
- % Identity 78.7
- Alignment Length 61
- Location of Alignment in SEQ ID NO 363: from 185 to 245
  
- Alignment No. 3397
- gi No. 1702984
- % Identity 71.7
- Alignment Length 252
- Location of Alignment in SEQ ID NO 363: from 1 to 248
  
- Alignment No. 3398
- gi No. 1702985

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- % Identity 70.7
- Alignment Length 249
- Location of Alignment in SEQ ID NO 363: from 5 to 253
  
- Alignment No. 3399
- gi No. 2136849
- % Identity 86.7
- Alignment Length 15
- Location of Alignment in SEQ ID NO 363: from 202 to 216
  
- Alignment No. 3400
- gi No. 2136849
- % Identity 73.9
- Alignment Length 23
- Location of Alignment in SEQ ID NO 363: from 21 to 43
  
- Alignment No. 3401
- gi No. 2266662
- % Identity 71.2
- Alignment Length 245
- Location of Alignment in SEQ ID NO 363: from 2 to 242
  
- Alignment No. 3402
- gi No. 2492490
- % Identity 80.3
- Alignment Length 254
- Location of Alignment in SEQ ID NO 363: from 1 to 254
  
- Alignment No. 3403
- gi No. 2492491
- % Identity 73.4
- Alignment Length 229
- Location of Alignment in SEQ ID NO 363: from 6 to 234
  
- Alignment No. 3404
- gi No. 249998
- % Identity 95
- Alignment Length 20
- Location of Alignment in SEQ ID NO 363: from 166 to 185
  
- Alignment No. 3405
- gi No. 2822483
- % Identity 76.4
- Alignment Length 242
- Location of Alignment in SEQ ID NO 363: from 4 to 245
  
- Alignment No. 3406
- gi No. 2895518
- % Identity 71.7
- Alignment Length 255
- Location of Alignment in SEQ ID NO 363: from 1 to 254
  
- Alignment No. 3407
- gi No. 2921512
- % Identity 73.4
- Alignment Length 246
- Location of Alignment in SEQ ID NO 363: from 2 to 242
  
- Alignment No. 3408
- gi No. 294909
- % Identity 87.2

- Alignment Length 39
- Location of Alignment in SEQ ID NO 363: from 201 to 239
- Alignment No. 3409
- gi No. 300293
- % Identity 88.9
- Alignment Length 18
- Location of Alignment in SEQ ID NO 363: from 199 to 216
- Alignment No. 3410
- gi No. 3023178
- % Identity 70.8
- Alignment Length 250
- Location of Alignment in SEQ ID NO 363: from 4 to 253
- Alignment No. 3411
- gi No. 3023184
- % Identity 76
- Alignment Length 129
- Location of Alignment in SEQ ID NO 363: from 1 to 129
- Alignment No. 3412
- gi No. 3023185
- % Identity 73
- Alignment Length 126
- Location of Alignment in SEQ ID NO 363: from 4 to 129
- Alignment No. 3413
- gi No. 3023186
- % Identity 75.4
- Alignment Length 126
- Location of Alignment in SEQ ID NO 363: from 4 to 129
- Alignment No. 3414
- gi No. 3023187
- % Identity 70.2
- Alignment Length 250
- Location of Alignment in SEQ ID NO 363: from 2 to 247
- Alignment No. 3415
- gi No. 3023196
- % Identity 76.3
- Alignment Length 240
- Location of Alignment in SEQ ID NO 363: from 4 to 243
- Alignment No. 3416
- gi No. 3023197
- % Identity 76.4
- Alignment Length 246
- Location of Alignment in SEQ ID NO 363: from 1 to 245
- Alignment No. 3417
- gi No. 3023216
- % Identity 74
- Alignment Length 250
- Location of Alignment in SEQ ID NO 363: from 4 to 250
- Alignment No. 3418
- gi No. 3264621
- % Identity 79
- Alignment Length 62

- Location of Alignment in SEQ ID NO 363: from 187 to 248
- Alignment No. 3419
- gi No. 3334102
- % Identity 70.6
- Alignment Length 238
- Location of Alignment in SEQ ID NO 363: from 1 to 238
- Alignment No. 3420
- gi No. 3452087
- % Identity 77.2
- Alignment Length 57
- Location of Alignment in SEQ ID NO 363: from 187 to 242
- Alignment No. 3421
- gi No. 3551052
- % Identity 74.4
- Alignment Length 250
- Location of Alignment in SEQ ID NO 363: from 4 to 250
- Alignment No. 3422
- gi No. 3912950
- % Identity 72.5
- Alignment Length 238
- Location of Alignment in SEQ ID NO 363: from 2 to 235
- Alignment No. 3423
- gi No. 3925703
- % Identity 80.3
- Alignment Length 254
- Location of Alignment in SEQ ID NO 363: from 1 to 254
- Alignment No. 3424
- gi No. 4689242
- % Identity 79.9
- Alignment Length 219
- Location of Alignment in SEQ ID NO 363: from 15 to 233
- Alignment No. 3425
- gi No. 481199
- % Identity 81
- Alignment Length 21
- Location of Alignment in SEQ ID NO 363: from 222 to 242
- Alignment No. 3426
- gi No. 530049
- % Identity 73.1
- Alignment Length 227
- Location of Alignment in SEQ ID NO 363: from 21 to 247
- Alignment No. 3427
- gi No. 5668779
- % Identity 80
- Alignment Length 240
- Location of Alignment in SEQ ID NO 363: from 1 to 240
- Alignment No. 3428
- gi No. 671634
- % Identity 70.5
- Alignment Length 241
- Location of Alignment in SEQ ID NO 363: from 1 to 240



- Alignment No. 3429
- gi No. 693796
- % Identity 84.2
- Alignment Length 19
- Location of Alignment in SEQ ID NO 363: from 197 to 215
  
- Alignment No. 3430
- gi No. 728968
- % Identity 71
- Alignment Length 241
- Location of Alignment in SEQ ID NO 363: from 1 to 240
  
- Alignment No. 3431
- gi No. 832919
- % Identity 73.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 363: from 97 to 240

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 364
- Ceres seq\_id 1498350
- Location of start within SEQ ID NO 362: at 194 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3432
- 14-3-3 proteins
- Location within SEQ ID NO 364: from 1 to 217 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3433
- gi No. 100554
- % Identity 70
- Alignment Length 257
- Location of Alignment in SEQ ID NO 364: from 1 to 230
  
- Alignment No. 3434
- gi No. 1076393
- % Identity 70.6
- Alignment Length 248
- Location of Alignment in SEQ ID NO 364: from 1 to 227
  
- Alignment No. 3435
- gi No. 1085462
- % Identity 75
- Alignment Length 28
- Location of Alignment in SEQ ID NO 364: from 94 to 121
  
- Alignment No. 3436
- gi No. 112684
- % Identity 70
- Alignment Length 257
- Location of Alignment in SEQ ID NO 364: from 1 to 230
  
- Alignment No. 3437
- gi No. 112685
- % Identity 78.7
- Alignment Length 61
- Location of Alignment in SEQ ID NO 364: from 162 to 222

- Alignment No. 3438
- gi No. 1168192
- % Identity 75.6
- Alignment Length 242
- Location of Alignment in SEQ ID NO 364: from 1 to 222
  
- Alignment No. 3439
- gi No. 1168198
- % Identity 71.1
- Alignment Length 253
- Location of Alignment in SEQ ID NO 364: from 1 to 231
  
- Alignment No. 3440
- gi No. 1168200
- % Identity 70.6
- Alignment Length 248
- Location of Alignment in SEQ ID NO 364: from 1 to 227
  
- Alignment No. 3441
- gi No. 1172821
- % Identity 70.7
- Alignment Length 251
- Location of Alignment in SEQ ID NO 364: from 1 to 224
  
- Alignment No. 3442
- gi No. 1345592
- % Identity 100
- Alignment Length 254
- Location of Alignment in SEQ ID NO 364: from 1 to 231
  
- Alignment No. 3443
- gi No. 1364072
- % Identity 81
- Alignment Length 21
- Location of Alignment in SEQ ID NO 364: from 172 to 192
  
- Alignment No. 3444
- gi No. 1519251
- % Identity 70.9
- Alignment Length 247
- Location of Alignment in SEQ ID NO 364: from 1 to 226
  
- Alignment No. 3445
- gi No. 168548
- % Identity 78.7
- Alignment Length 61
- Location of Alignment in SEQ ID NO 364: from 162 to 222
  
- Alignment No. 3446
- gi No. 1702984
- % Identity 71.7
- Alignment Length 252
- Location of Alignment in SEQ ID NO 364: from 1 to 225
  
- Alignment No. 3447
- gi No. 1702985
- % Identity 70.7
- Alignment Length 249
- Location of Alignment in SEQ ID NO 364: from 1 to 230
  
- Alignment No. 3448

- gi No. 2136849
- % Identity 86.7
- Alignment Length 15
- Location of Alignment in SEQ ID NO 364: from 179 to 193
  
- Alignment No. 3449
- gi No. 2136849
- % Identity 73.9
- Alignment Length 23
- Location of Alignment in SEQ ID NO 364: from 1 to 20
  
- Alignment No. 3450
- gi No. 2266662
- % Identity 71.2
- Alignment Length 245
- Location of Alignment in SEQ ID NO 364: from 1 to 219
  
- Alignment No. 3451
- gi No. 2492490
- % Identity 80.3
- Alignment Length 254
- Location of Alignment in SEQ ID NO 364: from 1 to 231
  
- Alignment No. 3452
- gi No. 2492491
- % Identity 73.4
- Alignment Length 229
- Location of Alignment in SEQ ID NO 364: from 1 to 211
  
- Alignment No. 3453
- gi No. 249998
- % Identity 95
- Alignment Length 20
- Location of Alignment in SEQ ID NO 364: from 143 to 162
  
- Alignment No. 3454
- gi No. 2822483
- % Identity 76.4
- Alignment Length 242
- Location of Alignment in SEQ ID NO 364: from 1 to 222
  
- Alignment No. 3455
- gi No. 2895518
- % Identity 71.7
- Alignment Length 255
- Location of Alignment in SEQ ID NO 364: from 1 to 231
  
- Alignment No. 3456
- gi No. 2921512
- % Identity 73.4
- Alignment Length 246
- Location of Alignment in SEQ ID NO 364: from 1 to 219
  
- Alignment No. 3457
- gi No. 294909
- % Identity 87.2
- Alignment Length 39
- Location of Alignment in SEQ ID NO 364: from 178 to 216
  
- Alignment No. 3458
- gi No. 300293

- % Identity 88.9
- Alignment Length 18
- Location of Alignment in SEQ ID NO 364: from 176 to 193
  
- Alignment No. 3459
- gi No. 3023178
- % Identity 70.8
- Alignment Length 250
- Location of Alignment in SEQ ID NO 364: from 1 to 230
  
- Alignment No. 3460
- gi No. 3023184
- % Identity 76
- Alignment Length 129
- Location of Alignment in SEQ ID NO 364: from 1 to 106
  
- Alignment No. 3461
- gi No. 3023185
- % Identity 73
- Alignment Length 126
- Location of Alignment in SEQ ID NO 364: from 1 to 106
  
- Alignment No. 3462
- gi No. 3023186
- % Identity 75.4
- Alignment Length 126
- Location of Alignment in SEQ ID NO 364: from 1 to 106
  
- Alignment No. 3463
- gi No. 3023187
- % Identity 70.2
- Alignment Length 250
- Location of Alignment in SEQ ID NO 364: from 1 to 224
  
- Alignment No. 3464
- gi No. 3023196
- % Identity 76.3
- Alignment Length 240
- Location of Alignment in SEQ ID NO 364: from 1 to 220
  
- Alignment No. 3465
- gi No. 3023197
- % Identity 76.4
- Alignment Length 246
- Location of Alignment in SEQ ID NO 364: from 1 to 222
  
- Alignment No. 3466
- gi No. 3023216
- % Identity 74
- Alignment Length 250
- Location of Alignment in SEQ ID NO 364: from 1 to 227
  
- Alignment No. 3467
- gi No. 3264621
- % Identity 79
- Alignment Length 62
- Location of Alignment in SEQ ID NO 364: from 164 to 225
  
- Alignment No. 3468
- gi No. 3334102
- % Identity 70.6

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- Alignment Length 238
- Location of Alignment in SEQ ID NO 364: from 1 to 215
- Alignment No. 3469
- gi No. 3452087
- % Identity 77.2
- Alignment Length 57
- Location of Alignment in SEQ ID NO 364: from 164 to 219
- Alignment No. 3470
- gi No. 3551052
- % Identity 74.4
- Alignment Length 250
- Location of Alignment in SEQ ID NO 364: from 1 to 227
- Alignment No. 3471
- gi No. 3912950
- % Identity 72.5
- Alignment Length 238
- Location of Alignment in SEQ ID NO 364: from 1 to 212
- Alignment No. 3472
- gi No. 3925703
- % Identity 80.3
- Alignment Length 254
- Location of Alignment in SEQ ID NO 364: from 1 to 231
- Alignment No. 3473
- gi No. 4689242
- % Identity 79.9
- Alignment Length 219
- Location of Alignment in SEQ ID NO 364: from 1 to 210
- Alignment No. 3474
- gi No. 481199
- % Identity 81
- Alignment Length 21
- Location of Alignment in SEQ ID NO 364: from 199 to 219
- Alignment No. 3475
- gi No. 530049
- % Identity 73.1
- Alignment Length 227
- Location of Alignment in SEQ ID NO 364: from 1 to 224
- Alignment No. 3476
- gi No. 5668779
- % Identity 80
- Alignment Length 240
- Location of Alignment in SEQ ID NO 364: from 1 to 217
- Alignment No. 3477
- gi No. 671634
- % Identity 70.5
- Alignment Length 241
- Location of Alignment in SEQ ID NO 364: from 1 to 217
- Alignment No. 3478
- gi No. 693796
- % Identity 84.2
- Alignment Length 19

- Location of Alignment in SEQ ID NO 364: from 174 to 192
- Alignment No. 3479
- gi No. 728968
- % Identity 71
- Alignment Length 241
- Location of Alignment in SEQ ID NO 364: from 1 to 217
- Alignment No. 3480
- gi No. 832919
- % Identity 73.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 364: from 74 to 217

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 365
- Ceres seq\_id 1498351
- Location of start within SEQ ID NO 362: at 206 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3481
- 14-3-3 proteins
- Location within SEQ ID NO 365: from 1 to 213 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3482
- gi No. 100554
- % Identity 70
- Alignment Length 257
- Location of Alignment in SEQ ID NO 365: from 1 to 226
- Alignment No. 3483
- gi No. 1076393
- % Identity 70.6
- Alignment Length 248
- Location of Alignment in SEQ ID NO 365: from 1 to 223
- Alignment No. 3484
- gi No. 1085462
- % Identity 75
- Alignment Length 28
- Location of Alignment in SEQ ID NO 365: from 90 to 117
- Alignment No. 3485
- gi No. 112684
- % Identity 70
- Alignment Length 257
- Location of Alignment in SEQ ID NO 365: from 1 to 226
- Alignment No. 3486
- gi No. 112685
- % Identity 78.7
- Alignment Length 61
- Location of Alignment in SEQ ID NO 365: from 158 to 218
- Alignment No. 3487
- gi No. 1168192
- % Identity 75.6
- Alignment Length 242
- Location of Alignment in SEQ ID NO 365: from 1 to 218

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- Alignment No. 3488
- gi No. 1168198
- % Identity 71.1
- Alignment Length 253
- Location of Alignment in SEQ ID NO 365: from 1 to 227
  
- Alignment No. 3489
- gi No. 1168200
- % Identity 70.6
- Alignment Length 248
- Location of Alignment in SEQ ID NO 365: from 1 to 223
  
- Alignment No. 3490
- gi No. 1172821
- % Identity 70.7
- Alignment Length 251
- Location of Alignment in SEQ ID NO 365: from 1 to 220
  
- Alignment No. 3491
- gi No. 1345592
- % Identity 100
- Alignment Length 254
- Location of Alignment in SEQ ID NO 365: from 1 to 227
  
- Alignment No. 3492
- gi No. 1364072
- % Identity 81
- Alignment Length 21
- Location of Alignment in SEQ ID NO 365: from 168 to 188
  
- Alignment No. 3493
- gi No. 1519251
- % Identity 70.9
- Alignment Length 247
- Location of Alignment in SEQ ID NO 365: from 1 to 222
  
- Alignment No. 3494
- gi No. 168548
- % Identity 78.7
- Alignment Length 61
- Location of Alignment in SEQ ID NO 365: from 158 to 218
  
- Alignment No. 3495
- gi No. 1702984
- % Identity 71.7
- Alignment Length 252
- Location of Alignment in SEQ ID NO 365: from 1 to 221
  
- Alignment No. 3496
- gi No. 1702985
- % Identity 70.7
- Alignment Length 249
- Location of Alignment in SEQ ID NO 365: from 1 to 226
  
- Alignment No. 3497
- gi No. 2136849
- % Identity 86.7
- Alignment Length 15
- Location of Alignment in SEQ ID NO 365: from 175 to 189

- Alignment No. 3498
- gi No. 2136849
- % Identity 73.9
- Alignment Length 23
- Location of Alignment in SEQ ID NO 365: from 1 to 16
  
- Alignment No. 3499
- gi No. 2266662
- % Identity 71.2
- Alignment Length 245
- Location of Alignment in SEQ ID NO 365: from 1 to 215
  
- Alignment No. 3500
- gi No. 2492490
- % Identity 80.3
- Alignment Length 254
- Location of Alignment in SEQ ID NO 365: from 1 to 227
  
- Alignment No. 3501
- gi No. 2492491
- % Identity 73.4
- Alignment Length 229
- Location of Alignment in SEQ ID NO 365: from 1 to 207
  
- Alignment No. 3502
- gi No. 249998
- % Identity 95
- Alignment Length 20
- Location of Alignment in SEQ ID NO 365: from 139 to 158
  
- Alignment No. 3503
- gi No. 2822483
- % Identity 76.4
- Alignment Length 242
- Location of Alignment in SEQ ID NO 365: from 1 to 218
  
- Alignment No. 3504
- gi No. 2895518
- % Identity 71.7
- Alignment Length 255
- Location of Alignment in SEQ ID NO 365: from 1 to 227
  
- Alignment No. 3505
- gi No. 2921512
- % Identity 73.4
- Alignment Length 246
- Location of Alignment in SEQ ID NO 365: from 1 to 215
  
- Alignment No. 3506
- gi No. 294909
- % Identity 87.2
- Alignment Length 39
- Location of Alignment in SEQ ID NO 365: from 174 to 212
  
- Alignment No. 3507
- gi No. 300293
- % Identity 88.9
- Alignment Length 18
- Location of Alignment in SEQ ID NO 365: from 172 to 189
  
- Alignment No. 3508



- gi No. 3023178
- % Identity 70.8
- Alignment Length 250
- Location of Alignment in SEQ ID NO 365: from 1 to 226
  
- Alignment No. 3509
- gi No. 3023184
- % Identity 76
- Alignment Length 129
- Location of Alignment in SEQ ID NO 365: from 1 to 102
  
- Alignment No. 3510
- gi No. 3023185
- % Identity 73
- Alignment Length 126
- Location of Alignment in SEQ ID NO 365: from 1 to 102
  
- Alignment No. 3511
- gi No. 3023186
- % Identity 75.4
- Alignment Length 126
- Location of Alignment in SEQ ID NO 365: from 1 to 102
  
- Alignment No. 3512
- gi No. 3023187
- % Identity 70.2
- Alignment Length 250
- Location of Alignment in SEQ ID NO 365: from 1 to 220
  
- Alignment No. 3513
- gi No. 3023196
- % Identity 76.3
- Alignment Length 240
- Location of Alignment in SEQ ID NO 365: from 1 to 216
  
- Alignment No. 3514
- gi No. 3023197
- % Identity 76.4
- Alignment Length 246
- Location of Alignment in SEQ ID NO 365: from 1 to 218
  
- Alignment No. 3515
- gi No. 3023216
- % Identity 74
- Alignment Length 250
- Location of Alignment in SEQ ID NO 365: from 1 to 223
  
- Alignment No. 3516
- gi No. 3264621
- % Identity 79
- Alignment Length 62
- Location of Alignment in SEQ ID NO 365: from 160 to 221
  
- Alignment No. 3517
- gi No. 3334102
- % Identity 70.6
- Alignment Length 238
- Location of Alignment in SEQ ID NO 365: from 1 to 211
  
- Alignment No. 3518
- gi No. 3452087

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- % Identity 77.2
- Alignment Length 57
- Location of Alignment in SEQ ID NO 365: from 160 to 215
  
- Alignment No. 3519
- gi No. 3551052
- % Identity 74.4
- Alignment Length 250
- Location of Alignment in SEQ ID NO 365: from 1 to 223
  
- Alignment No. 3520
- gi No. 3912950
- % Identity 72.5
- Alignment Length 238
- Location of Alignment in SEQ ID NO 365: from 1 to 208
  
- Alignment No. 3521
- gi No. 3925703
- % Identity 80.3
- Alignment Length 254
- Location of Alignment in SEQ ID NO 365: from 1 to 227
  
- Alignment No. 3522
- gi No. 4689242
- % Identity 79.9
- Alignment Length 219
- Location of Alignment in SEQ ID NO 365: from 1 to 206
  
- Alignment No. 3523
- gi No. 481199
- % Identity 81
- Alignment Length 21
- Location of Alignment in SEQ ID NO 365: from 195 to 215
  
- Alignment No. 3524
- gi No. 530049
- % Identity 73.1
- Alignment Length 227
- Location of Alignment in SEQ ID NO 365: from 1 to 220
  
- Alignment No. 3525
- gi No. 5668779
- % Identity 80
- Alignment Length 240
- Location of Alignment in SEQ ID NO 365: from 1 to 213
  
- Alignment No. 3526
- gi No. 671634
- % Identity 70.5
- Alignment Length 241
- Location of Alignment in SEQ ID NO 365: from 1 to 213
  
- Alignment No. 3527
- gi No. 693796
- % Identity 84.2
- Alignment Length 19
- Location of Alignment in SEQ ID NO 365: from 170 to 188
  
- Alignment No. 3528
- gi No. 728968
- % Identity 71

- Alignment Length 241
- Location of Alignment in SEQ ID NO 365: from 1 to 213
- Alignment No. 3529
- gi No. 832919
- % Identity 73.6
- Alignment Length 144
- Location of Alignment in SEQ ID NO 365: from 70 to 213

Maximum Length Sequence corresponding to clone ID 106244

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 366
- Ceres seq\_id 1498352

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 367
- Ceres seq\_id 1498353
- Location of start within SEQ ID NO 366: at 157 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 3530
- gi No. 3935172
- % Identity 100
- Alignment Length 57
- Location of Alignment in SEQ ID NO 367: from 1 to 57
- Alignment No. 3531
- gi No. 3935173
- % Identity 73.7
- Alignment Length 57
- Location of Alignment in SEQ ID NO 367: from 1 to 57

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 368
- Ceres seq\_id 1498354
- Location of start within SEQ ID NO 366: at 608 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 3532
- gi No. 3935172
- % Identity 97.5
- Alignment Length 277
- Location of Alignment in SEQ ID NO 368: from 1 to 174
- Alignment No. 3533
- gi No. 3935173
- % Identity 83.5
- Alignment Length 267
- Location of Alignment in SEQ ID NO 368: from 1 to 174

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 369
- Ceres seq\_id 1498355
- Location of start within SEQ ID NO 366: at 665 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 3534
- gi No. 3935172
- % Identity 97.5
- Alignment Length 277
- Location of Alignment in SEQ ID NO 369: from 1 to 155
- Alignment No. 3535
- gi No. 3935173
- % Identity 83.5
- Alignment Length 267
- Location of Alignment in SEQ ID NO 369: from 1 to 155

Maximum Length Sequence corresponding to clone ID 106266

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 370
- Ceres seq\_id 1498356

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 371
- Ceres seq\_id 1498357
- Location of start within SEQ ID NO 370: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3536
- ADP-ribosylation factor family
- Location within SEQ ID NO 371: from 81 to 233 aa.
- Alignment No. 3537
- Ras family
- Location within SEQ ID NO 371: from 88 to 276 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3538
- gi No. 1076545
- % Identity 79.5
- Alignment Length 200
- Location of Alignment in SEQ ID NO 371: from 77 to 276
- Alignment No. 3539
- gi No. 1370178
- % Identity 80.5
- Alignment Length 200
- Location of Alignment in SEQ ID NO 371: from 77 to 276
- Alignment No. 3540
- gi No. 168558
- % Identity 94.3
- Alignment Length 70
- Location of Alignment in SEQ ID NO 371: from 81 to 150
- Alignment No. 3541
- gi No. 266879
- % Identity 79.4
- Alignment Length 199
- Location of Alignment in SEQ ID NO 371: from 77 to 275
- Alignment No. 3542
- gi No. 2689233
- % Identity 70.1
- Alignment Length 67
- Location of Alignment in SEQ ID NO 371: from 80 to 146

- Alignment No. 3543
- gi No. 2853090
- % Identity 90
- Alignment Length 200
- Location of Alignment in SEQ ID NO 371: from 77 to 276
  
- Alignment No. 3544
- gi No. 346934
- % Identity 75.5
- Alignment Length 49
- Location of Alignment in SEQ ID NO 371: from 98 to 146
  
- Alignment No. 3545
- gi No. 400976
- % Identity 99.5
- Alignment Length 200
- Location of Alignment in SEQ ID NO 371: from 77 to 276
  
- Alignment No. 3546
- gi No. 400977
- % Identity 79.9
- Alignment Length 199
- Location of Alignment in SEQ ID NO 371: from 77 to 275
  
- Alignment No. 3547
- gi No. 421941
- % Identity 86.5
- Alignment Length 200
- Location of Alignment in SEQ ID NO 371: from 77 to 276
  
- Alignment No. 3548
- gi No. 4506371
- % Identity 70.3
- Alignment Length 165
- Location of Alignment in SEQ ID NO 371: from 88 to 252
  
- Alignment No. 3549
- gi No. 464572
- % Identity 79.6
- Alignment Length 49
- Location of Alignment in SEQ ID NO 371: from 98 to 146
  
- Alignment No. 3550
- gi No. 4741844
- % Identity 78.5
- Alignment Length 200
- Location of Alignment in SEQ ID NO 371: from 79 to 276

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 372
- Ceres seq\_id 1498358
- Location of start within SEQ ID NO 370: at 230 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3551
- ADP-ribosylation factor family
- Location within SEQ ID NO 372: from 5 to 157 aa.
  
- Alignment No. 3552

- Ras family
- Location within SEQ ID NO 372: from 12 to 200 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3553
- gi No. 1076545
- % Identity 79.5
- Alignment Length 200
- Location of Alignment in SEQ ID NO 372: from 1 to 200
- Alignment No. 3554
- gi No. 1370178
- % Identity 80.5
- Alignment Length 200
- Location of Alignment in SEQ ID NO 372: from 1 to 200
- Alignment No. 3555
- gi No. 168558
- % Identity 94.3
- Alignment Length 70
- Location of Alignment in SEQ ID NO 372: from 5 to 74
- Alignment No. 3556
- gi No. 266879
- % Identity 79.4
- Alignment Length 199
- Location of Alignment in SEQ ID NO 372: from 1 to 199
- Alignment No. 3557
- gi No. 2689233
- % Identity 70.1
- Alignment Length 67
- Location of Alignment in SEQ ID NO 372: from 4 to 70
- Alignment No. 3558
- gi No. 2853090
- % Identity 90
- Alignment Length 200
- Location of Alignment in SEQ ID NO 372: from 1 to 200
- Alignment No. 3559
- gi No. 346934
- % Identity 75.5
- Alignment Length 49
- Location of Alignment in SEQ ID NO 372: from 22 to 70
- Alignment No. 3560
- gi No. 400976
- % Identity 99.5
- Alignment Length 200
- Location of Alignment in SEQ ID NO 372: from 1 to 200
- Alignment No. 3561
- gi No. 400977
- % Identity 79.9
- Alignment Length 199
- Location of Alignment in SEQ ID NO 372: from 1 to 199
- Alignment No. 3562
- gi No. 421941
- % Identity 86.5

- Alignment Length 200
- Location of Alignment in SEQ ID NO 372: from 1 to 200
- Alignment No. 3563
- gi No. 4506371
- % Identity 70.3
- Alignment Length 165
- Location of Alignment in SEQ ID NO 372: from 12 to 176
- Alignment No. 3564
- gi No. 464572
- % Identity 79.6
- Alignment Length 49
- Location of Alignment in SEQ ID NO 372: from 22 to 70
- Alignment No. 3565
- gi No. 4741844
- % Identity 78.5
- Alignment Length 200
- Location of Alignment in SEQ ID NO 372: from 3 to 200

Maximum Length Sequence corresponding to clone ID 107731

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 373
- Ceres seq\_id 1498362

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 374
- Ceres seq\_id 1498363
- Location of start within SEQ ID NO 373: at 2 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3566
- Tubulin
- Location within SEQ ID NO 374: from 23 to 213 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3567
- gi No. 1002511
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3568
- gi No. 100551
- % Identity 84
- Alignment Length 131
- Location of Alignment in SEQ ID NO 374: from 85 to 213
- Alignment No. 3569
- gi No. 101810
- % Identity 87
- Alignment Length 23
- Location of Alignment in SEQ ID NO 374: from 113 to 135
- Alignment No. 3570
- gi No. 1066143
- % Identity 79.8
- Alignment Length 119
- Location of Alignment in SEQ ID NO 374: from 97 to 213

- Alignment No. 3571
- gi No. 1076737
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3572
- gi No. 1076738
- % Identity 87
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3573
- gi No. 1079272
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3574
- gi No. 1084983
- % Identity 74.4
- Alignment Length 43
- Location of Alignment in SEQ ID NO 374: from 23 to 65
  
- Alignment No. 3575
- gi No. 1085670
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3576
- gi No. 109431
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3577
- gi No. 109432
- % Identity 80.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3578
- gi No. 109433
- % Identity 74.5
- Alignment Length 106
- Location of Alignment in SEQ ID NO 374: from 110 to 213
  
- Alignment No. 3579
- gi No. 1096761
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3580
- gi No. 1174594
- % Identity 72
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3581



- gi No. 1174595
- % Identity 82.7
- Alignment Length 196
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3582
- gi No. 1174596
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3583
- gi No. 1174598
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3584
- gi No. 1174599
- % Identity 82.7
- Alignment Length 196
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3585
- gi No. 1174600
- % Identity 87
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3586
- gi No. 1174603
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3587
- gi No. 1174604
- % Identity 79.8
- Alignment Length 119
- Location of Alignment in SEQ ID NO 374: from 97 to 213
  
- Alignment No. 3588
- gi No. 1174605
- % Identity 76.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3589
- gi No. 1174606
- % Identity 72.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3590
- gi No. 1174607
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3591
- gi No. 1217658

- % Identity 76.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3592
- gi No. 1220547
- % Identity 77.6
- Alignment Length 192
- Location of Alignment in SEQ ID NO 374: from 24 to 213
  
- Alignment No. 3593
- gi No. 1223788
- % Identity 70.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3594
- gi No. 1296832
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3595
- gi No. 1296834
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3596
- gi No. 1322214
- % Identity 75.3
- Alignment Length 178
- Location of Alignment in SEQ ID NO 374: from 38 to 213
  
- Alignment No. 3597
- gi No. 1351201
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3598
- gi No. 1351202
- % Identity 87
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3599
- gi No. 1351203
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3600
- gi No. 1351204
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3601
- gi No. 135442
- % Identity 84

- Alignment Length 194
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3602
- gi No. 135443
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3603
- gi No. 135444
- % Identity 84.7
- Alignment Length 131
- Location of Alignment in SEQ ID NO 374: from 85 to 213
  
- Alignment No. 3604
- gi No. 135445
- % Identity 75.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3605
- gi No. 135446
- % Identity 79.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3606
- gi No. 135448
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3607
- gi No. 135449
- % Identity 82.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3608
- gi No. 135450
- % Identity 71
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3609
- gi No. 135451
- % Identity 79.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3610
- gi No. 135452
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3611
- gi No. 135453
- % Identity 82.9
- Alignment Length 193

- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3612
- gi No. 135454
- % Identity 71
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3613
- gi No. 135456
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3614
- gi No. 135457
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3615
- gi No. 135458
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3616
- gi No. 135460
- % Identity 82.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3617
- gi No. 135462
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3618
- gi No. 135463
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3619
- gi No. 135464
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3620
- gi No. 135465
- % Identity 73.9
- Alignment Length 199
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3621
- gi No. 135467
- % Identity 92.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213

- Alignment No. 3622
- gi No. 135468
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3623
- gi No. 135469
- % Identity 78.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3624
- gi No. 135471
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3625
- gi No. 135473
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3626
- gi No. 135475
- % Identity 78.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3627
- gi No. 135476
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3628
- gi No. 135478
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3629
- gi No. 135480
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3630
- gi No. 135481
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3631
- gi No. 135482
- % Identity 78.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213

- Alignment No. 3632
- gi No. 135483
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3633
- gi No. 135485
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3634
- gi No. 135488
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3635
- gi No. 135489
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3636
- gi No. 135490
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3637
- gi No. 135491
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3638
- gi No. 135493
- % Identity 75.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3639
- gi No. 135494
- % Identity 81.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3640
- gi No. 135497
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3641
- gi No. 135498
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3642

- gi No. 135499
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3643
- gi No. 135500
- % Identity 76.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3644
- gi No. 1362583
- % Identity 76.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3645
- gi No. 1363909
- % Identity 72.9
- Alignment Length 48
- Location of Alignment in SEQ ID NO 374: from 23 to 70
  
- Alignment No. 3646
- gi No. 1399450
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3647
- gi No. 1488052
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3648
- gi No. 158739
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3649
- gi No. 158743
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3650
- gi No. 159159
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3651
- gi No. 159161
- % Identity 76.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3652
- gi No. 159412

- % Identity 74.4
- Alignment Length 43
- Location of Alignment in SEQ ID NO 374: from 23 to 65
  
- Alignment No. 3653
- gi No. 159418
- % Identity 74.4
- Alignment Length 43
- Location of Alignment in SEQ ID NO 374: from 23 to 65
  
- Alignment No. 3654
- gi No. 160110
- % Identity 78.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3655
- gi No. 161221
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3656
- gi No. 166459
- % Identity 70.8
- Alignment Length 72
- Location of Alignment in SEQ ID NO 374: from 27 to 98
  
- Alignment No. 3657
- gi No. 166461
- % Identity 72.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 374: from 23 to 98
  
- Alignment No. 3658
- gi No. 166467
- % Identity 71.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 374: from 23 to 98
  
- Alignment No. 3659
- gi No. 167452
- % Identity 83.7
- Alignment Length 43
- Location of Alignment in SEQ ID NO 374: from 23 to 65
  
- Alignment No. 3660
- gi No. 168918
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3661
- gi No. 169402
- % Identity 75.5
- Alignment Length 98
- Location of Alignment in SEQ ID NO 374: from 118 to 213
  
- Alignment No. 3662
- gi No. 1729843
- % Identity 73.1



- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3663
- gi No. 1729844
- % Identity 78.6
- Alignment Length 168
- Location of Alignment in SEQ ID NO 374: from 48 to 213
  
- Alignment No. 3664
- gi No. 1729845
- % Identity 76.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3665
- gi No. 1729846
- % Identity 77.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3666
- gi No. 1729847
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3667
- gi No. 1729848
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3668
- gi No. 1729849
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3669
- gi No. 1729850
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3670
- gi No. 1729851
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3671
- gi No. 1743277
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3672
- gi No. 1769804
- % Identity 75.1
- Alignment Length 193

- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3673
- gi No. 1805274
- % Identity 71.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3674
- gi No. 1808703
- % Identity 75.3
- Alignment Length 93
- Location of Alignment in SEQ ID NO 374: from 27 to 119
- Alignment No. 3675
- gi No. 1808709
- % Identity 73.6
- Alignment Length 87
- Location of Alignment in SEQ ID NO 374: from 27 to 113
- Alignment No. 3676
- gi No. 1808741
- % Identity 73.3
- Alignment Length 86
- Location of Alignment in SEQ ID NO 374: from 27 to 112
- Alignment No. 3677
- gi No. 1808751
- % Identity 75.3
- Alignment Length 93
- Location of Alignment in SEQ ID NO 374: from 27 to 119
- Alignment No. 3678
- gi No. 1808753
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 374: from 152 to 213
- Alignment No. 3679
- gi No. 1808757
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 374: from 152 to 213
- Alignment No. 3680
- gi No. 1808765
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 374: from 152 to 213
- Alignment No. 3681
- gi No. 1808777
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 374: from 152 to 213
- Alignment No. 3682
- gi No. 1808801
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 374: from 152 to 213

- Alignment No. 3683
- gi No. 1808803
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 374: from 152 to 213
  
- Alignment No. 3684
- gi No. 1845221
- % Identity 77.7
- Alignment Length 175
- Location of Alignment in SEQ ID NO 374: from 41 to 213
  
- Alignment No. 3685
- gi No. 1857526
- % Identity 71.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3686
- gi No. 1944528
- % Identity 72.3
- Alignment Length 195
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3687
- gi No. 202229
- % Identity 77.3
- Alignment Length 128
- Location of Alignment in SEQ ID NO 374: from 88 to 213
  
- Alignment No. 3688
- gi No. 2073101
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3689
- gi No. 208119
- % Identity 89.5
- Alignment Length 19
- Location of Alignment in SEQ ID NO 374: from 23 to 41
  
- Alignment No. 3690
- gi No. 2119273
- % Identity 84.2
- Alignment Length 19
- Location of Alignment in SEQ ID NO 374: from 23 to 41
  
- Alignment No. 3691
- gi No. 2119274
- % Identity 76.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3692
- gi No. 2119276
- % Identity 80.6
- Alignment Length 186
- Location of Alignment in SEQ ID NO 374: from 30 to 213

- Alignment No. 3693
- gi No. 2119278
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3694
- gi No. 2119279
- % Identity 84.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3695
- gi No. 2155306
- % Identity 82.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3696
- gi No. 223429
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3697
- gi No. 223486
- % Identity 77.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3698
- gi No. 2258435
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3699
- gi No. 226737
- % Identity 78.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3700
- gi No. 2292892
- % Identity 76.8
- Alignment Length 151
- Location of Alignment in SEQ ID NO 374: from 65 to 213
  
- Alignment No. 3701
- gi No. 2443344
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3702
- gi No. 2443346
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3703

- gi No. 2501420
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3704
- gi No. 2501421
- % Identity 79.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3705
- gi No. 2501422
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3706
- gi No. 2529291
- % Identity 70.4
- Alignment Length 81
- Location of Alignment in SEQ ID NO 374: from 27 to 107
  
- Alignment No. 3707
- gi No. 2529293
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 374: from 27 to 90
  
- Alignment No. 3708
- gi No. 2529297
- % Identity 71.6
- Alignment Length 67
- Location of Alignment in SEQ ID NO 374: from 27 to 93
  
- Alignment No. 3709
- gi No. 2529299
- % Identity 70
- Alignment Length 60
- Location of Alignment in SEQ ID NO 374: from 27 to 86
  
- Alignment No. 3710
- gi No. 2529306
- % Identity 72.9
- Alignment Length 70
- Location of Alignment in SEQ ID NO 374: from 27 to 96
  
- Alignment No. 3711
- gi No. 2529332
- % Identity 71.8
- Alignment Length 71
- Location of Alignment in SEQ ID NO 374: from 27 to 97
  
- Alignment No. 3712
- gi No. 2584739
- % Identity 72
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3713
- gi No. 2613141

- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3714
- gi No. 2661079
- % Identity 73.3
- Alignment Length 90
- Location of Alignment in SEQ ID NO 374: from 126 to 213
- Alignment No. 3715
- gi No. 267072
- % Identity 85
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3716
- gi No. 267073
- % Identity 84.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3717
- gi No. 267075
- % Identity 83.8
- Alignment Length 191
- Location of Alignment in SEQ ID NO 374: from 25 to 213
- Alignment No. 3718
- gi No. 267076
- % Identity 82.1
- Alignment Length 184
- Location of Alignment in SEQ ID NO 374: from 32 to 213
- Alignment No. 3719
- gi No. 267077
- % Identity 85.1
- Alignment Length 194
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3720
- gi No. 267078
- % Identity 76.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3721
- gi No. 267079
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3722
- gi No. 267080
- % Identity 76.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3723
- gi No. 267081
- % Identity 84.5

- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3724
- gi No. 267082
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3725
- gi No. 267083
- % Identity 88.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3726
- gi No. 267084
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3727
- gi No. 2674316
- % Identity 77.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 374: from 23 to 119
  
- Alignment No. 3728
- gi No. 2674318
- % Identity 76.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 374: from 23 to 119
  
- Alignment No. 3729
- gi No. 2674326
- % Identity 76.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 374: from 23 to 119
  
- Alignment No. 3730
- gi No. 2674328
- % Identity 76.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 374: from 23 to 119
  
- Alignment No. 3731
- gi No. 2674340
- % Identity 76.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 374: from 23 to 119
  
- Alignment No. 3732
- gi No. 2815694
- % Identity 73.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 374: from 113 to 213
  
- Alignment No. 3733
- gi No. 2815696
- % Identity 72.8
- Alignment Length 103

- Location of Alignment in SEQ ID NO 374: from 113 to 213
- Alignment No. 3734
- gi No. 2815698
- % Identity 73.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 374: from 113 to 213
- Alignment No. 3735
- gi No. 2815700
- % Identity 70.7
- Alignment Length 99
- Location of Alignment in SEQ ID NO 374: from 117 to 213
- Alignment No. 3736
- gi No. 2815702
- % Identity 73.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 374: from 113 to 213
- Alignment No. 3737
- gi No. 2815704
- % Identity 72.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 374: from 113 to 213
- Alignment No. 3738
- gi No. 2815712
- % Identity 73.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 374: from 113 to 213
- Alignment No. 3739
- gi No. 2815714
- % Identity 72.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 374: from 113 to 213
- Alignment No. 3740
- gi No. 2815716
- % Identity 71.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 374: from 113 to 213
- Alignment No. 3741
- gi No. 2815726
- % Identity 72.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 374: from 113 to 213
- Alignment No. 3742
- gi No. 2815728
- % Identity 72.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 374: from 113 to 213
- Alignment No. 3743
- gi No. 2815730
- % Identity 73.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 374: from 113 to 213



- Alignment No. 3744
- gi No. 2815732
- % Identity 73.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 374: from 113 to 213
  
- Alignment No. 3745
- gi No. 2827753
- % Identity 77
- Alignment Length 61
- Location of Alignment in SEQ ID NO 374: from 155 to 213
  
- Alignment No. 3746
- gi No. 2827988
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3747
- gi No. 2951981
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3748
- gi No. 2952178
- % Identity 75.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 374: from 23 to 119
  
- Alignment No. 3749
- gi No. 2952196
- % Identity 73.6
- Alignment Length 87
- Location of Alignment in SEQ ID NO 374: from 23 to 109
  
- Alignment No. 3750
- gi No. 2957260
- % Identity 75.3
- Alignment Length 93
- Location of Alignment in SEQ ID NO 374: from 27 to 119
  
- Alignment No. 3751
- gi No. 2967660
- % Identity 75.8
- Alignment Length 95
- Location of Alignment in SEQ ID NO 374: from 23 to 117
  
- Alignment No. 3752
- gi No. 3046903
- % Identity 75.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3753
- gi No. 3046905
- % Identity 75.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213

- Alignment No. 3754
- gi No. 3046907
- % Identity 75.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3755
- gi No. 310317
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3756
- gi No. 313801
- % Identity 81.6
- Alignment Length 190
- Location of Alignment in SEQ ID NO 374: from 26 to 213
  
- Alignment No. 3757
- gi No. 3211738
- % Identity 70.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3758
- gi No. 3211740
- % Identity 70.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3759
- gi No. 322701
- % Identity 83.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3760
- gi No. 323099
- % Identity 78.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3761
- gi No. 3319905
- % Identity 77.2
- Alignment Length 123
- Location of Alignment in SEQ ID NO 374: from 51 to 173
  
- Alignment No. 3762
- gi No. 3320190
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 374: from 152 to 213
  
- Alignment No. 3763
- gi No. 3320196
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 374: from 152 to 213
  
- Alignment No. 3764

- gi No. 3320202
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 374: from 152 to 213
  
- Alignment No. 3765
- gi No. 3320234
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 374: from 152 to 213
  
- Alignment No. 3766
- gi No. 3320240
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 374: from 152 to 213
  
- Alignment No. 3767
- gi No. 3328335
- % Identity 72.7
- Alignment Length 55
- Location of Alignment in SEQ ID NO 374: from 26 to 78
  
- Alignment No. 3768
- gi No. 3341415
- % Identity 77.7
- Alignment Length 166
- Location of Alignment in SEQ ID NO 374: from 50 to 213
  
- Alignment No. 3769
- gi No. 3341429
- % Identity 76.6
- Alignment Length 124
- Location of Alignment in SEQ ID NO 374: from 51 to 174
  
- Alignment No. 3770
- gi No. 3348075
- % Identity 77.6
- Alignment Length 134
- Location of Alignment in SEQ ID NO 374: from 82 to 213
  
- Alignment No. 3771
- gi No. 3399724
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3772
- gi No. 345389
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3773
- gi No. 3688132
- % Identity 74.1
- Alignment Length 143
- Location of Alignment in SEQ ID NO 374: from 73 to 213
  
- Alignment No. 3774
- gi No. 3688134

- % Identity 74.1
- Alignment Length 143
- Location of Alignment in SEQ ID NO 374: from 73 to 213
  
- Alignment No. 3775
- gi No. 3688136
- % Identity 74.1
- Alignment Length 143
- Location of Alignment in SEQ ID NO 374: from 73 to 213
  
- Alignment No. 3776
- gi No. 3688138
- % Identity 74.1
- Alignment Length 143
- Location of Alignment in SEQ ID NO 374: from 73 to 213
  
- Alignment No. 3777
- gi No. 3688140
- % Identity 73.4
- Alignment Length 143
- Location of Alignment in SEQ ID NO 374: from 73 to 213
  
- Alignment No. 3778
- gi No. 3688146
- % Identity 74.1
- Alignment Length 143
- Location of Alignment in SEQ ID NO 374: from 73 to 213
  
- Alignment No. 3779
- gi No. 3688540
- % Identity 74.8
- Alignment Length 143
- Location of Alignment in SEQ ID NO 374: from 73 to 213
  
- Alignment No. 3780
- gi No. 3745822
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3781
- gi No. 3790449
- % Identity 78.7
- Alignment Length 178
- Location of Alignment in SEQ ID NO 374: from 38 to 213
  
- Alignment No. 3782
- gi No. 3790451
- % Identity 78.1
- Alignment Length 178
- Location of Alignment in SEQ ID NO 374: from 38 to 213
  
- Alignment No. 3783
- gi No. 3790453
- % Identity 77.5
- Alignment Length 178
- Location of Alignment in SEQ ID NO 374: from 38 to 213
  
- Alignment No. 3784
- gi No. 3790456
- % Identity 77

- Alignment Length 178
- Location of Alignment in SEQ ID NO 374: from 38 to 213
- Alignment No. 3785
- gi No. 386036
- % Identity 83.3
- Alignment Length 18
- Location of Alignment in SEQ ID NO 374: from 126 to 143
- Alignment No. 3786
- gi No. 3875182
- % Identity 78.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3787
- gi No. 388069
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3788
- gi No. 3885846
- % Identity 77.1
- Alignment Length 83
- Location of Alignment in SEQ ID NO 374: from 23 to 105
- Alignment No. 3789
- gi No. 3907633
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3790
- gi No. 3915083
- % Identity 83.1
- Alignment Length 195
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3791
- gi No. 3915087
- % Identity 72.6
- Alignment Length 197
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3792
- gi No. 3915093
- % Identity 70.7
- Alignment Length 198
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3793
- gi No. 3915883
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3794
- gi No. 3924793
- % Identity 76.2
- Alignment Length 193

- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3795
- gi No. 3928816
- % Identity 77.7
- Alignment Length 103
- Location of Alignment in SEQ ID NO 374: from 113 to 213
- Alignment No. 3796
- gi No. 3978220
- % Identity 89.8
- Alignment Length 59
- Location of Alignment in SEQ ID NO 374: from 97 to 155
- Alignment No. 3797
- gi No. 3978222
- % Identity 86.4
- Alignment Length 59
- Location of Alignment in SEQ ID NO 374: from 97 to 155
- Alignment No. 3798
- gi No. 3986687
- % Identity 91.2
- Alignment Length 170
- Location of Alignment in SEQ ID NO 374: from 23 to 192
- Alignment No. 3799
- gi No. 398845
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3800
- gi No. 398847
- % Identity 81
- Alignment Length 195
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3801
- gi No. 398849
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3802
- gi No. 401163
- % Identity 71.8
- Alignment Length 195
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3803
- gi No. 401165
- % Identity 73.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3804
- gi No. 401166
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213

- Alignment No. 3805
- gi No. 4033472
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3806
- gi No. 4079637
- % Identity 79.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3807
- gi No. 4098319
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3808
- gi No. 4098321
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3809
- gi No. 4098323
- % Identity 86.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3810
- gi No. 4098329
- % Identity 86.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3811
- gi No. 4098331
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3812
- gi No. 4098333
- % Identity 83.6
- Alignment Length 189
- Location of Alignment in SEQ ID NO 374: from 27 to 213
  
- Alignment No. 3813
- gi No. 4105696
- % Identity 84
- Alignment Length 194
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3814
- gi No. 4105829
- % Identity 79.2
- Alignment Length 178
- Location of Alignment in SEQ ID NO 374: from 38 to 213

- Alignment No. 3815
- gi No. 4105831
- % Identity 79.2
- Alignment Length 178
- Location of Alignment in SEQ ID NO 374: from 38 to 213
  
- Alignment No. 3816
- gi No. 4139172
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3817
- gi No. 4140272
- % Identity 77.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3818
- gi No. 4165490
- % Identity 80.3
- Alignment Length 76
- Location of Alignment in SEQ ID NO 374: from 140 to 213
  
- Alignment No. 3819
- gi No. 417854
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3820
- gi No. 417855
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3821
- gi No. 417857
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3822
- gi No. 417858
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3823
- gi No. 4210476
- % Identity 85.7
- Alignment Length 161
- Location of Alignment in SEQ ID NO 374: from 29 to 189
  
- Alignment No. 3824
- gi No. 4261617
- % Identity 72
- Alignment Length 25
- Location of Alignment in SEQ ID NO 374: from 42 to 66
  
- Alignment No. 3825



- gi No. 4335957
- % Identity 70.5
- Alignment Length 61
- Location of Alignment in SEQ ID NO 374: from 27 to 87
  
- Alignment No. 3826
- gi No. 4335961
- % Identity 72.1
- Alignment Length 68
- Location of Alignment in SEQ ID NO 374: from 27 to 94
  
- Alignment No. 3827
- gi No. 4378761
- % Identity 78.7
- Alignment Length 141
- Location of Alignment in SEQ ID NO 374: from 23 to 163
  
- Alignment No. 3828
- gi No. 439735
- % Identity 76.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3829
- gi No. 4415990
- % Identity 87
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3830
- gi No. 4415992
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3831
- gi No. 4415994
- % Identity 86.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3832
- gi No. 4415996
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3833
- gi No. 4455142
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3834
- gi No. 4507729
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3835
- gi No. 4558495

- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3836
- gi No. 464850
- % Identity 82.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3837
- gi No. 464851
- % Identity 82.6
- Alignment Length 161
- Location of Alignment in SEQ ID NO 374: from 55 to 213
  
- Alignment No. 3838
- gi No. 464852
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3839
- gi No. 464854
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3840
- gi No. 472314
- % Identity 76.7
- Alignment Length 86
- Location of Alignment in SEQ ID NO 374: from 130 to 213
  
- Alignment No. 3841
- gi No. 472316
- % Identity 76.7
- Alignment Length 86
- Location of Alignment in SEQ ID NO 374: from 130 to 213
  
- Alignment No. 3842
- gi No. 472318
- % Identity 74.4
- Alignment Length 86
- Location of Alignment in SEQ ID NO 374: from 130 to 213
  
- Alignment No. 3843
- gi No. 472353
- % Identity 70.9
- Alignment Length 86
- Location of Alignment in SEQ ID NO 374: from 130 to 213
  
- Alignment No. 3844
- gi No. 472357
- % Identity 70.9
- Alignment Length 86
- Location of Alignment in SEQ ID NO 374: from 130 to 213
  
- Alignment No. 3845
- gi No. 472378
- % Identity 74.4

- Alignment Length 86
- Location of Alignment in SEQ ID NO 374: from 130 to 213
- Alignment No. 3846
- gi No. 478328
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3847
- gi No. 4884102
- % Identity 71.2
- Alignment Length 73
- Location of Alignment in SEQ ID NO 374: from 143 to 213
- Alignment No. 3848
- gi No. 515692
- % Identity 78.8
- Alignment Length 66
- Location of Alignment in SEQ ID NO 374: from 150 to 213
- Alignment No. 3849
- gi No. 5174735
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3850
- gi No. 5174737
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3851
- gi No. 5174739
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3852
- gi No. 539934
- % Identity 76.7
- Alignment Length 30
- Location of Alignment in SEQ ID NO 374: from 23 to 52
- Alignment No. 3853
- gi No. 542388
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3854
- gi No. 549053
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3855
- gi No. 549054
- % Identity 72.5
- Alignment Length 193

- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3856
- gi No. 552298
- % Identity 73.8
- Alignment Length 42
- Location of Alignment in SEQ ID NO 374: from 23 to 64
- Alignment No. 3857
- gi No. 5524661
- % Identity 77.1
- Alignment Length 175
- Location of Alignment in SEQ ID NO 374: from 41 to 213
- Alignment No. 3858
- gi No. 5668667
- % Identity 82.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3859
- gi No. 5668669
- % Identity 84.5
- Alignment Length 194
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3860
- gi No. 5668671
- % Identity 84.9
- Alignment Length 186
- Location of Alignment in SEQ ID NO 374: from 30 to 213
- Alignment No. 3861
- gi No. 567053
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3862
- gi No. 5726087
- % Identity 76.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 374: from 23 to 119
- Alignment No. 3863
- gi No. 5726091
- % Identity 73.2
- Alignment Length 82
- Location of Alignment in SEQ ID NO 374: from 23 to 104
- Alignment No. 3864
- gi No. 5726092
- % Identity 74.2
- Alignment Length 93
- Location of Alignment in SEQ ID NO 374: from 23 to 115
- Alignment No. 3865
- gi No. 5726105
- % Identity 75.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 374: from 23 to 119

- Alignment No. 3866
- gi No. 586076
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3867
- gi No. 586077
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3868
- gi No. 586078
- % Identity 86
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3869
- gi No. 603436
- % Identity 79.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3870
- gi No. 624292
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3871
- gi No. 629790
- % Identity 84.4
- Alignment Length 135
- Location of Alignment in SEQ ID NO 374: from 81 to 213
  
- Alignment No. 3872
- gi No. 629791
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3873
- gi No. 629806
- % Identity 86.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3874
- gi No. 629838
- % Identity 81
- Alignment Length 195
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3875
- gi No. 629839
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213

- Alignment No. 3876
- gi No. 629840
- % Identity 87
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3877
- gi No. 629841
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3878
- gi No. 630461
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3879
- gi No. 630801
- % Identity 80.8
- Alignment Length 182
- Location of Alignment in SEQ ID NO 374: from 34 to 213
- Alignment No. 3880
- gi No. 730900
- % Identity 71
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3881
- gi No. 730902
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3882
- gi No. 797283
- % Identity 71.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3883
- gi No. 81816
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3884
- gi No. 81952
- % Identity 83.9
- Alignment Length 192
- Location of Alignment in SEQ ID NO 374: from 24 to 213
- Alignment No. 3885
- gi No. 829169
- % Identity 83.9
- Alignment Length 194
- Location of Alignment in SEQ ID NO 374: from 23 to 213
- Alignment No. 3886

- gi No. 829213
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3887
- gi No. 83721
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3888
- gi No. 83798
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3889
- gi No. 83945
- % Identity 72.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3890
- gi No. 84075
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3891
- gi No. 84172
- % Identity 81.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3892
- gi No. 84173
- % Identity 81.6
- Alignment Length 190
- Location of Alignment in SEQ ID NO 374: from 26 to 213
  
- Alignment No. 3893
- gi No. 84248
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3894
- gi No. 84335
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3895
- gi No. 849160
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3896
- gi No. 860916

- % Identity 72.8
- Alignment Length 180
- Location of Alignment in SEQ ID NO 374: from 42 to 213
  
- Alignment No. 3897
- gi No. 86468
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3898
- gi No. 86471
- % Identity 78.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3899
- gi No. 91858
- % Identity 79.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3900
- gi No. 92930
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3901
- gi No. 984564
- % Identity 72.1
- Alignment Length 86
- Location of Alignment in SEQ ID NO 374: from 130 to 213
  
- Alignment No. 3902
- gi No. 984572
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3903
- gi No. 986926
- % Identity 74.4
- Alignment Length 86
- Location of Alignment in SEQ ID NO 374: from 130 to 213
  
- Alignment No. 3904
- gi No. 986933
- % Identity 73.3
- Alignment Length 86
- Location of Alignment in SEQ ID NO 374: from 130 to 213
  
- Alignment No. 3905
- gi No. 986935
- % Identity 72.1
- Alignment Length 86
- Location of Alignment in SEQ ID NO 374: from 130 to 213
  
- Alignment No. 3906
- gi No. 986937
- % Identity 70.9



- Alignment Length 86
- Location of Alignment in SEQ ID NO 374: from 130 to 213
  
- Alignment No. 3907
- gi No. 986954
- % Identity 70.9
- Alignment Length 86
- Location of Alignment in SEQ ID NO 374: from 130 to 213
  
- Alignment No. 3908
- gi No. 986959
- % Identity 73.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3909
- gi No. 986989
- % Identity 72.1
- Alignment Length 86
- Location of Alignment in SEQ ID NO 374: from 130 to 213
  
- Alignment No. 3910
- gi No. 99335
- % Identity 76.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213
  
- Alignment No. 3911
- gi No. 99367
- % Identity 81.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 374: from 23 to 213

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 375
- Ceres seq\_id 1498364
- Location of start within SEQ ID NO 373: at 68 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 3912
- Tubulin
- Location within SEQ ID NO 375: from 1 to 191 aa.

(D) Related Amino Acid Sequences

- Alignment No. 3913
- gi No. 1002511
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3914
- gi No. 100551
- % Identity 84
- Alignment Length 131
- Location of Alignment in SEQ ID NO 375: from 63 to 191
  
- Alignment No. 3915
- gi No. 101810
- % Identity 87
- Alignment Length 23

- Location of Alignment in SEQ ID NO 375: from 91 to 113
- Alignment No. 3916
- gi No. 1066143
- % Identity 79.8
- Alignment Length 119
- Location of Alignment in SEQ ID NO 375: from 75 to 191
- Alignment No. 3917
- gi No. 1076737
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3918
- gi No. 1076738
- % Identity 87
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3919
- gi No. 1079272
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3920
- gi No. 1084983
- % Identity 74.4
- Alignment Length 43
- Location of Alignment in SEQ ID NO 375: from 1 to 43
- Alignment No. 3921
- gi No. 1085670
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3922
- gi No. 109431
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3923
- gi No. 109432
- % Identity 80.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3924
- gi No. 109433
- % Identity 74.5
- Alignment Length 106
- Location of Alignment in SEQ ID NO 375: from 88 to 191
- Alignment No. 3925
- gi No. 1096761
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191

- Alignment No. 3926
- gi No. 1174594
- % Identity 72
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3927
- gi No. 1174595
- % Identity 82.7
- Alignment Length 196
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3928
- gi No. 1174596
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3929
- gi No. 1174598
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3930
- gi No. 1174599
- % Identity 82.7
- Alignment Length 196
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3931
- gi No. 1174600
- % Identity 87
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3932
- gi No. 1174603
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3933
- gi No. 1174604
- % Identity 79.8
- Alignment Length 119
- Location of Alignment in SEQ ID NO 375: from 75 to 191
  
- Alignment No. 3934
- gi No. 1174605
- % Identity 76.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3935
- gi No. 1174606
- % Identity 72.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191

- Alignment No. 3936
- gi No. 1174607
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3937
- gi No. 1217658
- % Identity 76.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3938
- gi No. 1220547
- % Identity 77.6
- Alignment Length 192
- Location of Alignment in SEQ ID NO 375: from 2 to 191
- Alignment No. 3939
- gi No. 1223788
- % Identity 70.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3940
- gi No. 1296832
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3941
- gi No. 1296834
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3942
- gi No. 1322214
- % Identity 75.3
- Alignment Length 178
- Location of Alignment in SEQ ID NO 375: from 16 to 191
- Alignment No. 3943
- gi No. 1351201
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3944
- gi No. 1351202
- % Identity 87
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3945
- gi No. 1351203
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3946

- gi No. 1351204
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3947
- gi No. 135442
- % Identity 84
- Alignment Length 194
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3948
- gi No. 135443
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3949
- gi No. 135444
- % Identity 84.7
- Alignment Length 131
- Location of Alignment in SEQ ID NO 375: from 63 to 191
  
- Alignment No. 3950
- gi No. 135445
- % Identity 75.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3951
- gi No. 135446
- % Identity 79.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3952
- gi No. 135448
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3953
- gi No. 135449
- % Identity 82.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3954
- gi No. 135450
- % Identity 71
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3955
- gi No. 135451
- % Identity 79.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3956
- gi No. 135452

- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3957
- gi No. 135453
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3958
- gi No. 135454
- % Identity 71
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3959
- gi No. 135456
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3960
- gi No. 135457
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3961
- gi No. 135458
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3962
- gi No. 135460
- % Identity 82.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3963
- gi No. 135462
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3964
- gi No. 135463
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3965
- gi No. 135464
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3966
- gi No. 135465
- % Identity 73.9

- Alignment Length 199
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3967
- gi No. 135467
- % Identity 92.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3968
- gi No. 135468
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3969
- gi No. 135469
- % Identity 78.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3970
- gi No. 135471
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3971
- gi No. 135473
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3972
- gi No. 135475
- % Identity 78.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3973
- gi No. 135476
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3974
- gi No. 135478
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3975
- gi No. 135480
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3976
- gi No. 135481
- % Identity 74.6
- Alignment Length 193

- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3977
- gi No. 135482
- % Identity 78.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3978
- gi No. 135483
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3979
- gi No. 135485
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3980
- gi No. 135488
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3981
- gi No. 135489
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3982
- gi No. 135490
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3983
- gi No. 135491
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3984
- gi No. 135493
- % Identity 75.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3985
- gi No. 135494
- % Identity 81.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 3986
- gi No. 135497
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191



- Alignment No. 3987
- gi No. 135498
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3988
- gi No. 135499
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3989
- gi No. 135500
- % Identity 76.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3990
- gi No. 1362583
- % Identity 76.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3991
- gi No. 1363909
- % Identity 72.9
- Alignment Length 48
- Location of Alignment in SEQ ID NO 375: from 1 to 48
  
- Alignment No. 3992
- gi No. 1399450
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3993
- gi No. 1488052
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3994
- gi No. 158739
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3995
- gi No. 158743
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3996
- gi No. 159159
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191

- Alignment No. 3997
- gi No. 159161
- % Identity 76.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 3998
- gi No. 159412
- % Identity 74.4
- Alignment Length 43
- Location of Alignment in SEQ ID NO 375: from 1 to 43
  
- Alignment No. 3999
- gi No. 159418
- % Identity 74.4
- Alignment Length 43
- Location of Alignment in SEQ ID NO 375: from 1 to 43
  
- Alignment No. 4000
- gi No. 160110
- % Identity 78.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4001
- gi No. 161221
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4002
- gi No. 166459
- % Identity 70.8
- Alignment Length 72
- Location of Alignment in SEQ ID NO 375: from 5 to 76
  
- Alignment No. 4003
- gi No. 166461
- % Identity 72.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 375: from 1 to 76
  
- Alignment No. 4004
- gi No. 166467
- % Identity 71.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 375: from 1 to 76
  
- Alignment No. 4005
- gi No. 167452
- % Identity 83.7
- Alignment Length 43
- Location of Alignment in SEQ ID NO 375: from 1 to 43
  
- Alignment No. 4006
- gi No. 168918
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4007

- gi No. 169402
- % Identity 75.5
- Alignment Length 98
- Location of Alignment in SEQ ID NO 375: from 96 to 191
  
- Alignment No. 4008
- gi No. 1729843
- % Identity 73.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4009
- gi No. 1729844
- % Identity 78.6
- Alignment Length 168
- Location of Alignment in SEQ ID NO 375: from 26 to 191
  
- Alignment No. 4010
- gi No. 1729845
- % Identity 76.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4011
- gi No. 1729846
- % Identity 77.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4012
- gi No. 1729847
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4013
- gi No. 1729848
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4014
- gi No. 1729849
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4015
- gi No. 1729850
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4016
- gi No. 1729851
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4017
- gi No. 1743277

- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4018
- gi No. 1769804
- % Identity 75.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4019
- gi No. 1805274
- % Identity 71.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4020
- gi No. 1808703
- % Identity 75.3
- Alignment Length 93
- Location of Alignment in SEQ ID NO 375: from 5 to 97
  
- Alignment No. 4021
- gi No. 1808709
- % Identity 73.6
- Alignment Length 87
- Location of Alignment in SEQ ID NO 375: from 5 to 91
  
- Alignment No. 4022
- gi No. 1808741
- % Identity 73.3
- Alignment Length 86
- Location of Alignment in SEQ ID NO 375: from 5 to 90
  
- Alignment No. 4023
- gi No. 1808751
- % Identity 75.3
- Alignment Length 93
- Location of Alignment in SEQ ID NO 375: from 5 to 97
  
- Alignment No. 4024
- gi No. 1808753
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 375: from 130 to 191
  
- Alignment No. 4025
- gi No. 1808757
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 375: from 130 to 191
  
- Alignment No. 4026
- gi No. 1808765
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 375: from 130 to 191
  
- Alignment No. 4027
- gi No. 1808777
- % Identity 70.3

- Alignment Length 64
- Location of Alignment in SEQ ID NO 375: from 130 to 191
  
- Alignment No. 4028
- gi No. 1808801
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 375: from 130 to 191
  
- Alignment No. 4029
- gi No. 1808803
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 375: from 130 to 191
  
- Alignment No. 4030
- gi No. 1845221
- % Identity 77.7
- Alignment Length 175
- Location of Alignment in SEQ ID NO 375: from 19 to 191
  
- Alignment No. 4031
- gi No. 1857526
- % Identity 71.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4032
- gi No. 1944528
- % Identity 72.3
- Alignment Length 195
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4033
- gi No. 202229
- % Identity 77.3
- Alignment Length 128
- Location of Alignment in SEQ ID NO 375: from 66 to 191
  
- Alignment No. 4034
- gi No. 2073101
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4035
- gi No. 208119
- % Identity 89.5
- Alignment Length 19
- Location of Alignment in SEQ ID NO 375: from 1 to 19
  
- Alignment No. 4036
- gi No. 2119273
- % Identity 84.2
- Alignment Length 19
- Location of Alignment in SEQ ID NO 375: from 1 to 19
  
- Alignment No. 4037
- gi No. 2119274
- % Identity 76.7
- Alignment Length 193

- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4038
- gi No. 2119276
- % Identity 80.6
- Alignment Length 186
- Location of Alignment in SEQ ID NO 375: from 8 to 191
- Alignment No. 4039
- gi No. 2119278
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4040
- gi No. 2119279
- % Identity 84.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4041
- gi No. 2155306
- % Identity 82.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4042
- gi No. 223429
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4043
- gi No. 223486
- % Identity 77.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4044
- gi No. 2258435
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4045
- gi No. 226737
- % Identity 78.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4046
- gi No. 2292892
- % Identity 76.8
- Alignment Length 151
- Location of Alignment in SEQ ID NO 375: from 43 to 191
- Alignment No. 4047
- gi No. 2443344
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191

- Alignment No. 4048
- gi No. 2443346
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4049
- gi No. 2501420
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4050
- gi No. 2501421
- % Identity 79.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4051
- gi No. 2501422
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4052
- gi No. 2529291
- % Identity 70.4
- Alignment Length 81
- Location of Alignment in SEQ ID NO 375: from 5 to 85
  
- Alignment No. 4053
- gi No. 2529293
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 375: from 5 to 68
  
- Alignment No. 4054
- gi No. 2529297
- % Identity 71.6
- Alignment Length 67
- Location of Alignment in SEQ ID NO 375: from 5 to 71
  
- Alignment No. 4055
- gi No. 2529299
- % Identity 70
- Alignment Length 60
- Location of Alignment in SEQ ID NO 375: from 5 to 64
  
- Alignment No. 4056
- gi No. 2529306
- % Identity 72.9
- Alignment Length 70
- Location of Alignment in SEQ ID NO 375: from 5 to 74
  
- Alignment No. 4057
- gi No. 2529332
- % Identity 71.8
- Alignment Length 71
- Location of Alignment in SEQ ID NO 375: from 5 to 75

- Alignment No. 4058
- gi No. 2584739
- % Identity 72
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4059
- gi No. 2613141
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4060
- gi No. 2661079
- % Identity 73.3
- Alignment Length 90
- Location of Alignment in SEQ ID NO 375: from 104 to 191
  
- Alignment No. 4061
- gi No. 267072
- % Identity 85
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4062
- gi No. 267073
- % Identity 84.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4063
- gi No. 267075
- % Identity 83.8
- Alignment Length 191
- Location of Alignment in SEQ ID NO 375: from 3 to 191
  
- Alignment No. 4064
- gi No. 267076
- % Identity 82.1
- Alignment Length 184
- Location of Alignment in SEQ ID NO 375: from 10 to 191
  
- Alignment No. 4065
- gi No. 267077
- % Identity 85.1
- Alignment Length 194
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4066
- gi No. 267078
- % Identity 76.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4067
- gi No. 267079
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4068



- gi No. 267080
- % Identity 76.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4069
- gi No. 267081
- % Identity 84.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4070
- gi No. 267082
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4071
- gi No. 267083
- % Identity 88.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4072
- gi No. 267084
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4073
- gi No. 2674316
- % Identity 77.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 375: from 1 to 97
  
- Alignment No. 4074
- gi No. 2674318
- % Identity 76.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 375: from 1 to 97
  
- Alignment No. 4075
- gi No. 2674326
- % Identity 76.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 375: from 1 to 97
  
- Alignment No. 4076
- gi No. 2674328
- % Identity 76.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 375: from 1 to 97
  
- Alignment No. 4077
- gi No. 2674340
- % Identity 76.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 375: from 1 to 97
  
- Alignment No. 4078
- gi No. 2815694

- % Identity 73.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 375: from 91 to 191
  
- Alignment No. 4079
- gi No. 2815696
- % Identity 72.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 375: from 91 to 191
  
- Alignment No. 4080
- gi No. 2815698
- % Identity 73.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 375: from 91 to 191
  
- Alignment No. 4081
- gi No. 2815700
- % Identity 70.7
- Alignment Length 99
- Location of Alignment in SEQ ID NO 375: from 95 to 191
  
- Alignment No. 4082
- gi No. 2815702
- % Identity 73.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 375: from 91 to 191
  
- Alignment No. 4083
- gi No. 2815704
- % Identity 72.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 375: from 91 to 191
  
- Alignment No. 4084
- gi No. 2815712
- % Identity 73.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 375: from 91 to 191
  
- Alignment No. 4085
- gi No. 2815714
- % Identity 72.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 375: from 91 to 191
  
- Alignment No. 4086
- gi No. 2815716
- % Identity 71.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 375: from 91 to 191
  
- Alignment No. 4087
- gi No. 2815726
- % Identity 72.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 375: from 91 to 191
  
- Alignment No. 4088
- gi No. 2815728
- % Identity 72.8

- Alignment Length 103
- Location of Alignment in SEQ ID NO 375: from 91 to 191
  
- Alignment No. 4089
- gi No. 2815730
- % Identity 73.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 375: from 91 to 191
  
- Alignment No. 4090
- gi No. 2815732
- % Identity 73.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 375: from 91 to 191
  
- Alignment No. 4091
- gi No. 2827753
- % Identity 77
- Alignment Length 61
- Location of Alignment in SEQ ID NO 375: from 133 to 191
  
- Alignment No. 4092
- gi No. 2827988
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4093
- gi No. 2951981
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4094
- gi No. 2952178
- % Identity 75.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 375: from 1 to 97
  
- Alignment No. 4095
- gi No. 2952196
- % Identity 73.6
- Alignment Length 87
- Location of Alignment in SEQ ID NO 375: from 1 to 87
  
- Alignment No. 4096
- gi No. 2957260
- % Identity 75.3
- Alignment Length 93
- Location of Alignment in SEQ ID NO 375: from 5 to 97
  
- Alignment No. 4097
- gi No. 2967660
- % Identity 75.8
- Alignment Length 95
- Location of Alignment in SEQ ID NO 375: from 1 to 95
  
- Alignment No. 4098
- gi No. 3046903
- % Identity 75.6
- Alignment Length 193

- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4099
- gi No. 3046905
- % Identity 75.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4100
- gi No. 3046907
- % Identity 75.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4101
- gi No. 310317
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4102
- gi No. 313801
- % Identity 81.6
- Alignment Length 190
- Location of Alignment in SEQ ID NO 375: from 4 to 191
- Alignment No. 4103
- gi No. 3211738
- % Identity 70.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4104
- gi No. 3211740
- % Identity 70.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4105
- gi No. 322701
- % Identity 83.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4106
- gi No. 323099
- % Identity 78.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4107
- gi No. 3319905
- % Identity 77.2
- Alignment Length 123
- Location of Alignment in SEQ ID NO 375: from 29 to 151
- Alignment No. 4108
- gi No. 3320190
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 375: from 130 to 191

- Alignment No. 4109
- gi No. 3320196
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 375: from 130 to 191
  
- Alignment No. 4110
- gi No. 3320202
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 375: from 130 to 191
  
- Alignment No. 4111
- gi No. 3320234
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 375: from 130 to 191
  
- Alignment No. 4112
- gi No. 3320240
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 375: from 130 to 191
  
- Alignment No. 4113
- gi No. 3328335
- % Identity 72.7
- Alignment Length 55
- Location of Alignment in SEQ ID NO 375: from 4 to 56
  
- Alignment No. 4114
- gi No. 3341415
- % Identity 77.7
- Alignment Length 166
- Location of Alignment in SEQ ID NO 375: from 28 to 191
  
- Alignment No. 4115
- gi No. 3341429
- % Identity 76.6
- Alignment Length 124
- Location of Alignment in SEQ ID NO 375: from 29 to 152
  
- Alignment No. 4116
- gi No. 3348075
- % Identity 77.6
- Alignment Length 134
- Location of Alignment in SEQ ID NO 375: from 60 to 191
  
- Alignment No. 4117
- gi No. 3399724
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4118
- gi No. 345389
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191

- Alignment No. 4119
- gi No. 3688132
- % Identity 74.1
- Alignment Length 143
- Location of Alignment in SEQ ID NO 375: from 51 to 191
  
- Alignment No. 4120
- gi No. 3688134
- % Identity 74.1
- Alignment Length 143
- Location of Alignment in SEQ ID NO 375: from 51 to 191
  
- Alignment No. 4121
- gi No. 3688136
- % Identity 74.1
- Alignment Length 143
- Location of Alignment in SEQ ID NO 375: from 51 to 191
  
- Alignment No. 4122
- gi No. 3688138
- % Identity 74.1
- Alignment Length 143
- Location of Alignment in SEQ ID NO 375: from 51 to 191
  
- Alignment No. 4123
- gi No. 3688140
- % Identity 73.4
- Alignment Length 143
- Location of Alignment in SEQ ID NO 375: from 51 to 191
  
- Alignment No. 4124
- gi No. 3688146
- % Identity 74.1
- Alignment Length 143
- Location of Alignment in SEQ ID NO 375: from 51 to 191
  
- Alignment No. 4125
- gi No. 3688540
- % Identity 74.8
- Alignment Length 143
- Location of Alignment in SEQ ID NO 375: from 51 to 191
  
- Alignment No. 4126
- gi No. 3745822
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4127
- gi No. 3790449
- % Identity 78.7
- Alignment Length 178
- Location of Alignment in SEQ ID NO 375: from 16 to 191
  
- Alignment No. 4128
- gi No. 3790451
- % Identity 78.1
- Alignment Length 178
- Location of Alignment in SEQ ID NO 375: from 16 to 191
  
- Alignment No. 4129

- gi No. 3790453
- % Identity 77.5
- Alignment Length 178
- Location of Alignment in SEQ ID NO 375: from 16 to 191
  
- Alignment No. 4130
- gi No. 3790456
- % Identity 77
- Alignment Length 178
- Location of Alignment in SEQ ID NO 375: from 16 to 191
  
- Alignment No. 4131
- gi No. 386036
- % Identity 83.3
- Alignment Length 18
- Location of Alignment in SEQ ID NO 375: from 104 to 121
  
- Alignment No. 4132
- gi No. 3875182
- % Identity 78.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4133
- gi No. 388069
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4134
- gi No. 3885846
- % Identity 77.1
- Alignment Length 83
- Location of Alignment in SEQ ID NO 375: from 1 to 83
  
- Alignment No. 4135
- gi No. 3907633
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4136
- gi No. 3915083
- % Identity 83.1
- Alignment Length 195
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4137
- gi No. 3915087
- % Identity 72.6
- Alignment Length 197
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4138
- gi No. 3915093
- % Identity 70.7
- Alignment Length 198
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4139
- gi No. 3915883

- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4140
- gi No. 3924793
- % Identity 76.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4141
- gi No. 3928816
- % Identity 77.7
- Alignment Length 103
- Location of Alignment in SEQ ID NO 375: from 91 to 191
  
- Alignment No. 4142
- gi No. 3978220
- % Identity 89.8
- Alignment Length 59
- Location of Alignment in SEQ ID NO 375: from 75 to 133
  
- Alignment No. 4143
- gi No. 3978222
- % Identity 86.4
- Alignment Length 59
- Location of Alignment in SEQ ID NO 375: from 75 to 133
  
- Alignment No. 4144
- gi No. 3986687
- % Identity 91.2
- Alignment Length 170
- Location of Alignment in SEQ ID NO 375: from 1 to 170
  
- Alignment No. 4145
- gi No. 398845
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4146
- gi No. 398847
- % Identity 81
- Alignment Length 195
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4147
- gi No. 398849
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4148
- gi No. 401163
- % Identity 71.8
- Alignment Length 195
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4149
- gi No. 401165
- % Identity 73.1



- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4150
- gi No. 401166
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4151
- gi No. 4033472
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4152
- gi No. 4079637
- % Identity 79.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4153
- gi No. 4098319
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4154
- gi No. 4098321
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4155
- gi No. 4098323
- % Identity 86.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4156
- gi No. 4098329
- % Identity 86.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4157
- gi No. 4098331
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4158
- gi No. 4098333
- % Identity 83.6
- Alignment Length 189
- Location of Alignment in SEQ ID NO 375: from 5 to 191
  
- Alignment No. 4159
- gi No. 4105696
- % Identity 84
- Alignment Length 194

- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4160
- gi No. 4105829
- % Identity 79.2
- Alignment Length 178
- Location of Alignment in SEQ ID NO 375: from 16 to 191
- Alignment No. 4161
- gi No. 4105831
- % Identity 79.2
- Alignment Length 178
- Location of Alignment in SEQ ID NO 375: from 16 to 191
- Alignment No. 4162
- gi No. 4139172
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4163
- gi No. 4140272
- % Identity 77.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4164
- gi No. 4165490
- % Identity 80.3
- Alignment Length 76
- Location of Alignment in SEQ ID NO 375: from 118 to 191
- Alignment No. 4165
- gi No. 417854
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4166
- gi No. 417855
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4167
- gi No. 417857
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4168
- gi No. 417858
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4169
- gi No. 4210476
- % Identity 85.7
- Alignment Length 161
- Location of Alignment in SEQ ID NO 375: from 7 to 167

- Alignment No. 4170
- gi No. 4261617
- % Identity 72
- Alignment Length 25
- Location of Alignment in SEQ ID NO 375: from 20 to 44
- Alignment No. 4171
- gi No. 4335957
- % Identity 70.5
- Alignment Length 61
- Location of Alignment in SEQ ID NO 375: from 5 to 65
- Alignment No. 4172
- gi No. 4335961
- % Identity 72.1
- Alignment Length 68
- Location of Alignment in SEQ ID NO 375: from 5 to 72
- Alignment No. 4173
- gi No. 4378761
- % Identity 78.7
- Alignment Length 141
- Location of Alignment in SEQ ID NO 375: from 1 to 141
- Alignment No. 4174
- gi No. 439735
- % Identity 76.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4175
- gi No. 4415990
- % Identity 87
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4176
- gi No. 4415992
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4177
- gi No. 4415994
- % Identity 86.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4178
- gi No. 4415996
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4179
- gi No. 4455142
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191

- Alignment No. 4180
- gi No. 4507729
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4181
- gi No. 4558495
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4182
- gi No. 464850
- % Identity 82.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4183
- gi No. 464851
- % Identity 82.6
- Alignment Length 161
- Location of Alignment in SEQ ID NO 375: from 33 to 191
  
- Alignment No. 4184
- gi No. 464852
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4185
- gi No. 464854
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4186
- gi No. 472314
- % Identity 76.7
- Alignment Length 86
- Location of Alignment in SEQ ID NO 375: from 108 to 191
  
- Alignment No. 4187
- gi No. 472316
- % Identity 76.7
- Alignment Length 86
- Location of Alignment in SEQ ID NO 375: from 108 to 191
  
- Alignment No. 4188
- gi No. 472318
- % Identity 74.4
- Alignment Length 86
- Location of Alignment in SEQ ID NO 375: from 108 to 191
  
- Alignment No. 4189
- gi No. 472353
- % Identity 70.9
- Alignment Length 86
- Location of Alignment in SEQ ID NO 375: from 108 to 191
  
- Alignment No. 4190

- gi No. 472357
- % Identity 70.9
- Alignment Length 86
- Location of Alignment in SEQ ID NO 375: from 108 to 191
  
- Alignment No. 4191
- gi No. 472378
- % Identity 74.4
- Alignment Length 86
- Location of Alignment in SEQ ID NO 375: from 108 to 191
  
- Alignment No. 4192
- gi No. 478328
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4193
- gi No. 4884102
- % Identity 71.2
- Alignment Length 73
- Location of Alignment in SEQ ID NO 375: from 121 to 191
  
- Alignment No. 4194
- gi No. 515692
- % Identity 78.8
- Alignment Length 66
- Location of Alignment in SEQ ID NO 375: from 128 to 191
  
- Alignment No. 4195
- gi No. 5174735
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4196
- gi No. 5174737
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4197
- gi No. 5174739
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4198
- gi No. 539934
- % Identity 76.7
- Alignment Length 30
- Location of Alignment in SEQ ID NO 375: from 1 to 30
  
- Alignment No. 4199
- gi No. 542388
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4200
- gi No. 549053

- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4201
- gi No. 549054
- % Identity 72.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4202
- gi No. 552298
- % Identity 73.8
- Alignment Length 42
- Location of Alignment in SEQ ID NO 375: from 1 to 42
  
- Alignment No. 4203
- gi No. 5524661
- % Identity 77.1
- Alignment Length 175
- Location of Alignment in SEQ ID NO 375: from 19 to 191
  
- Alignment No. 4204
- gi No. 5668667
- % Identity 82.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4205
- gi No. 5668669
- % Identity 84.5
- Alignment Length 194
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4206
- gi No. 5668671
- % Identity 84.9
- Alignment Length 186
- Location of Alignment in SEQ ID NO 375: from 8 to 191
  
- Alignment No. 4207
- gi No. 567053
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4208
- gi No. 5726087
- % Identity 76.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 375: from 1 to 97
  
- Alignment No. 4209
- gi No. 5726091
- % Identity 73.2
- Alignment Length 82
- Location of Alignment in SEQ ID NO 375: from 1 to 82
  
- Alignment No. 4210
- gi No. 5726092
- % Identity 74.2

- Alignment Length 93
- Location of Alignment in SEQ ID NO 375: from 1 to 93
- Alignment No. 4211
- gi No. 5726105
- % Identity 75.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 375: from 1 to 97
- Alignment No. 4212
- gi No. 586076
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4213
- gi No. 586077
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4214
- gi No. 586078
- % Identity 86
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4215
- gi No. 603436
- % Identity 79.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4216
- gi No. 624292
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4217
- gi No. 629790
- % Identity 84.4
- Alignment Length 135
- Location of Alignment in SEQ ID NO 375: from 59 to 191
- Alignment No. 4218
- gi No. 629791
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4219
- gi No. 629806
- % Identity 86.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4220
- gi No. 629838
- % Identity 81
- Alignment Length 195

- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4221
- gi No. 629839
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4222
- gi No. 629840
- % Identity 87
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4223
- gi No. 629841
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4224
- gi No. 630461
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4225
- gi No. 630801
- % Identity 80.8
- Alignment Length 182
- Location of Alignment in SEQ ID NO 375: from 12 to 191
- Alignment No. 4226
- gi No. 730900
- % Identity 71
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4227
- gi No. 730902
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4228
- gi No. 797283
- % Identity 71.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4229
- gi No. 81816
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
- Alignment No. 4230
- gi No. 81952
- % Identity 83.9
- Alignment Length 192
- Location of Alignment in SEQ ID NO 375: from 2 to 191



- Alignment No. 4231
- gi No. 829169
- % Identity 83.9
- Alignment Length 194
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4232
- gi No. 829213
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4233
- gi No. 83721
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4234
- gi No. 83798
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4235
- gi No. 83945
- % Identity 72.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4236
- gi No. 84075
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4237
- gi No. 84172
- % Identity 81.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4238
- gi No. 84173
- % Identity 81.6
- Alignment Length 190
- Location of Alignment in SEQ ID NO 375: from 4 to 191
  
- Alignment No. 4239
- gi No. 84248
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4240
- gi No. 84335
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191

- Alignment No. 4241
- gi No. 849160
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4242
- gi No. 860916
- % Identity 72.8
- Alignment Length 180
- Location of Alignment in SEQ ID NO 375: from 20 to 191
  
- Alignment No. 4243
- gi No. 86468
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4244
- gi No. 86471
- % Identity 78.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4245
- gi No. 91858
- % Identity 79.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4246
- gi No. 92930
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4247
- gi No. 984564
- % Identity 72.1
- Alignment Length 86
- Location of Alignment in SEQ ID NO 375: from 108 to 191
  
- Alignment No. 4248
- gi No. 984572
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4249
- gi No. 986926
- % Identity 74.4
- Alignment Length 86
- Location of Alignment in SEQ ID NO 375: from 108 to 191
  
- Alignment No. 4250
- gi No. 986933
- % Identity 73.3
- Alignment Length 86
- Location of Alignment in SEQ ID NO 375: from 108 to 191
  
- Alignment No. 4251

- gi No. 986935
- % Identity 72.1
- Alignment Length 86
- Location of Alignment in SEQ ID NO 375: from 108 to 191
  
- Alignment No. 4252
- gi No. 986937
- % Identity 70.9
- Alignment Length 86
- Location of Alignment in SEQ ID NO 375: from 108 to 191
  
- Alignment No. 4253
- gi No. 986954
- % Identity 70.9
- Alignment Length 86
- Location of Alignment in SEQ ID NO 375: from 108 to 191
  
- Alignment No. 4254
- gi No. 986959
- % Identity 73.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4255
- gi No. 986989
- % Identity 72.1
- Alignment Length 86
- Location of Alignment in SEQ ID NO 375: from 108 to 191
  
- Alignment No. 4256
- gi No. 99335
- % Identity 76.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191
  
- Alignment No. 4257
- gi No. 99367
- % Identity 81.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 375: from 1 to 191

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 376
- Ceres seq\_id 1498365
- Location of start within SEQ ID NO 373: at 263 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 4258
- Tubulin
- Location within SEQ ID NO 376: from 1 to 126 aa.

(D) Related Amino Acid Sequences

- Alignment No. 4259
- gi No. 1002511
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4260
- gi No. 100551

- % Identity 84
- Alignment Length 131
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4261
- gi No. 101810
- % Identity 87
- Alignment Length 23
- Location of Alignment in SEQ ID NO 376: from 26 to 48
  
- Alignment No. 4262
- gi No. 1066143
- % Identity 79.8
- Alignment Length 119
- Location of Alignment in SEQ ID NO 376: from 10 to 126
  
- Alignment No. 4263
- gi No. 1076737
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4264
- gi No. 1076738
- % Identity 87
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4265
- gi No. 1079272
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4266
- gi No. 1085670
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4267
- gi No. 109431
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4268
- gi No. 109432
- % Identity 80.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4269
- gi No. 109433
- % Identity 74.5
- Alignment Length 106
- Location of Alignment in SEQ ID NO 376: from 23 to 126
  
- Alignment No. 4270
- gi No. 1096761
- % Identity 79.3

- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4271
- gi No. 1174594
- % Identity 72
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4272
- gi No. 1174595
- % Identity 82.7
- Alignment Length 196
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4273
- gi No. 1174596
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4274
- gi No. 1174598
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4275
- gi No. 1174599
- % Identity 82.7
- Alignment Length 196
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4276
- gi No. 1174600
- % Identity 87
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4277
- gi No. 1174603
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4278
- gi No. 1174604
- % Identity 79.8
- Alignment Length 119
- Location of Alignment in SEQ ID NO 376: from 10 to 126
  
- Alignment No. 4279
- gi No. 1174605
- % Identity 76.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4280
- gi No. 1174606
- % Identity 72.5
- Alignment Length 193

- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4281
- gi No. 1174607
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4282
- gi No. 1217658
- % Identity 76.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4283
- gi No. 1220547
- % Identity 77.6
- Alignment Length 192
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4284
- gi No. 1223788
- % Identity 70.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4285
- gi No. 1296832
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4286
- gi No. 1296834
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4287
- gi No. 1322214
- % Identity 75.3
- Alignment Length 178
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4288
- gi No. 1351201
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4289
- gi No. 1351202
- % Identity 87
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4290
- gi No. 1351203
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126

- Alignment No. 4291
- gi No. 1351204
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4292
- gi No. 135442
- % Identity 84
- Alignment Length 194
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4293
- gi No. 135443
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4294
- gi No. 135444
- % Identity 84.7
- Alignment Length 131
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4295
- gi No. 135445
- % Identity 75.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4296
- gi No. 135446
- % Identity 79.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4297
- gi No. 135448
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4298
- gi No. 135449
- % Identity 82.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4299
- gi No. 135450
- % Identity 71
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4300
- gi No. 135451
- % Identity 79.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126

- Alignment No. 4301
- gi No. 135452
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4302
- gi No. 135453
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4303
- gi No. 135454
- % Identity 71
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4304
- gi No. 135456
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4305
- gi No. 135457
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4306
- gi No. 135458
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4307
- gi No. 135460
- % Identity 82.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4308
- gi No. 135462
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4309
- gi No. 135463
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4310
- gi No. 135464
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4311



- gi No. 135465
- % Identity 73.9
- Alignment Length 199
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4312
- gi No. 135467
- % Identity 92.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4313
- gi No. 135468
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4314
- gi No. 135469
- % Identity 78.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4315
- gi No. 135471
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4316
- gi No. 135473
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4317
- gi No. 135475
- % Identity 78.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4318
- gi No. 135476
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4319
- gi No. 135478
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4320
- gi No. 135480
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4321
- gi No. 135481

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- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4322
- gi No. 135482
- % Identity 78.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4323
- gi No. 135483
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4324
- gi No. 135485
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4325
- gi No. 135488
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4326
- gi No. 135489
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4327
- gi No. 135490
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4328
- gi No. 135491
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4329
- gi No. 135493
- % Identity 75.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4330
- gi No. 135494
- % Identity 81.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4331
- gi No. 135497
- % Identity 81.3

- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4332
- gi No. 135498
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4333
- gi No. 135499
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4334
- gi No. 135500
- % Identity 76.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4335
- gi No. 1362583
- % Identity 76.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4336
- gi No. 1399450
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4337
- gi No. 1488052
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4338
- gi No. 158739
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4339
- gi No. 158743
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4340
- gi No. 159159
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4341
- gi No. 159161
- % Identity 76.7
- Alignment Length 193

- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4342
- gi No. 160110
- % Identity 78.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4343
- gi No. 161221
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4344
- gi No. 166459
- % Identity 70.8
- Alignment Length 72
- Location of Alignment in SEQ ID NO 376: from 1 to 11
- Alignment No. 4345
- gi No. 166461
- % Identity 72.4
- Alignment Length 76
- Location of Alignment in SEQ ID NO 376: from 1 to 11
- Alignment No. 4346
- gi No. 166467
- % Identity 71.1
- Alignment Length 76
- Location of Alignment in SEQ ID NO 376: from 1 to 11
- Alignment No. 4347
- gi No. 168918
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4348
- gi No. 169402
- % Identity 75.5
- Alignment Length 98
- Location of Alignment in SEQ ID NO 376: from 31 to 126
- Alignment No. 4349
- gi No. 1729843
- % Identity 73.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4350
- gi No. 1729844
- % Identity 78.6
- Alignment Length 168
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4351
- gi No. 1729845
- % Identity 76.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126

- Alignment No. 4352
- gi No. 1729846
- % Identity 77.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4353
- gi No. 1729847
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4354
- gi No. 1729848
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4355
- gi No. 1729849
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4356
- gi No. 1729850
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4357
- gi No. 1729851
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4358
- gi No. 1743277
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4359
- gi No. 1769804
- % Identity 75.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4360
- gi No. 1805274
- % Identity 71.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4361
- gi No. 1808703
- % Identity 75.3
- Alignment Length 93
- Location of Alignment in SEQ ID NO 376: from 1 to 32

- Alignment No. 4362
- gi No. 1808709
- % Identity 73.6
- Alignment Length 87
- Location of Alignment in SEQ ID NO 376: from 1 to 26
  
- Alignment No. 4363
- gi No. 1808741
- % Identity 73.3
- Alignment Length 86
- Location of Alignment in SEQ ID NO 376: from 1 to 25
  
- Alignment No. 4364
- gi No. 1808751
- % Identity 75.3
- Alignment Length 93
- Location of Alignment in SEQ ID NO 376: from 1 to 32
  
- Alignment No. 4365
- gi No. 1808753
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 376: from 65 to 126
  
- Alignment No. 4366
- gi No. 1808757
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 376: from 65 to 126
  
- Alignment No. 4367
- gi No. 1808765
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 376: from 65 to 126
  
- Alignment No. 4368
- gi No. 1808777
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 376: from 65 to 126
  
- Alignment No. 4369
- gi No. 1808801
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 376: from 65 to 126
  
- Alignment No. 4370
- gi No. 1808803
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 376: from 65 to 126
  
- Alignment No. 4371
- gi No. 1845221
- % Identity 77.7
- Alignment Length 175
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4372

- gi No. 1857526
- % Identity 71.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4373
- gi No. 1944528
- % Identity 72.3
- Alignment Length 195
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4374
- gi No. 202229
- % Identity 77.3
- Alignment Length 128
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4375
- gi No. 2073101
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4376
- gi No. 2119274
- % Identity 76.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4377
- gi No. 2119276
- % Identity 80.6
- Alignment Length 186
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4378
- gi No. 2119278
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4379
- gi No. 2119279
- % Identity 84.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4380
- gi No. 2155306
- % Identity 82.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4381
- gi No. 223429
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4382
- gi No. 223486

- % Identity 77.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4383
- gi No. 2258435
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4384
- gi No. 226737
- % Identity 78.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4385
- gi No. 2292892
- % Identity 76.8
- Alignment Length 151
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4386
- gi No. 2443344
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4387
- gi No. 2443346
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4388
- gi No. 2501420
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4389
- gi No. 2501421
- % Identity 79.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4390
- gi No. 2501422
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4391
- gi No. 2529291
- % Identity 70.4
- Alignment Length 81
- Location of Alignment in SEQ ID NO 376: from 1 to 20
  
- Alignment No. 4392
- gi No. 2584739
- % Identity 72



- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4393
- gi No. 2613141
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4394
- gi No. 2661079
- % Identity 73.3
- Alignment Length 90
- Location of Alignment in SEQ ID NO 376: from 39 to 126
- Alignment No. 4395
- gi No. 267072
- % Identity 85
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4396
- gi No. 267073
- % Identity 84.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4397
- gi No. 267075
- % Identity 83.8
- Alignment Length 191
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4398
- gi No. 267076
- % Identity 82.1
- Alignment Length 184
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4399
- gi No. 267077
- % Identity 85.1
- Alignment Length 194
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4400
- gi No. 267078
- % Identity 76.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4401
- gi No. 267079
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4402
- gi No. 267080
- % Identity 76.2
- Alignment Length 193

- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4403
- gi No. 267081
- % Identity 84.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4404
- gi No. 267082
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4405
- gi No. 267083
- % Identity 88.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4406
- gi No. 267084
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4407
- gi No. 2674316
- % Identity 77.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 376: from 1 to 32
- Alignment No. 4408
- gi No. 2674318
- % Identity 76.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 376: from 1 to 32
- Alignment No. 4409
- gi No. 2674326
- % Identity 76.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 376: from 1 to 32
- Alignment No. 4410
- gi No. 2674328
- % Identity 76.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 376: from 1 to 32
- Alignment No. 4411
- gi No. 2674340
- % Identity 76.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 376: from 1 to 32
- Alignment No. 4412
- gi No. 2815694
- % Identity 73.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 376: from 26 to 126

- Alignment No. 4413
- gi No. 2815696
- % Identity 72.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 376: from 26 to 126
  
- Alignment No. 4414
- gi No. 2815698
- % Identity 73.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 376: from 26 to 126
  
- Alignment No. 4415
- gi No. 2815700
- % Identity 70.7
- Alignment Length 99
- Location of Alignment in SEQ ID NO 376: from 30 to 126
  
- Alignment No. 4416
- gi No. 2815702
- % Identity 73.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 376: from 26 to 126
  
- Alignment No. 4417
- gi No. 2815704
- % Identity 72.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 376: from 26 to 126
  
- Alignment No. 4418
- gi No. 2815712
- % Identity 73.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 376: from 26 to 126
  
- Alignment No. 4419
- gi No. 2815714
- % Identity 72.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 376: from 26 to 126
  
- Alignment No. 4420
- gi No. 2815716
- % Identity 71.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 376: from 26 to 126
  
- Alignment No. 4421
- gi No. 2815726
- % Identity 72.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 376: from 26 to 126
  
- Alignment No. 4422
- gi No. 2815728
- % Identity 72.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 376: from 26 to 126

- Alignment No. 4423
- gi No. 2815730
- % Identity 73.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 376: from 26 to 126
  
- Alignment No. 4424
- gi No. 2815732
- % Identity 73.8
- Alignment Length 103
- Location of Alignment in SEQ ID NO 376: from 26 to 126
  
- Alignment No. 4425
- gi No. 2827753
- % Identity 77
- Alignment Length 61
- Location of Alignment in SEQ ID NO 376: from 68 to 126
  
- Alignment No. 4426
- gi No. 2827988
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4427
- gi No. 2951981
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4428
- gi No. 2952178
- % Identity 75.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 376: from 1 to 32
  
- Alignment No. 4429
- gi No. 2952196
- % Identity 73.6
- Alignment Length 87
- Location of Alignment in SEQ ID NO 376: from 1 to 22
  
- Alignment No. 4430
- gi No. 2957260
- % Identity 75.3
- Alignment Length 93
- Location of Alignment in SEQ ID NO 376: from 1 to 32
  
- Alignment No. 4431
- gi No. 2967660
- % Identity 75.8
- Alignment Length 95
- Location of Alignment in SEQ ID NO 376: from 1 to 30
  
- Alignment No. 4432
- gi No. 3046903
- % Identity 75.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4433

- gi No. 3046905
- % Identity 75.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4434
- gi No. 3046907
- % Identity 75.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4435
- gi No. 310317
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4436
- gi No. 313801
- % Identity 81.6
- Alignment Length 190
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4437
- gi No. 3211738
- % Identity 70.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4438
- gi No. 3211740
- % Identity 70.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4439
- gi No. 322701
- % Identity 83.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4440
- gi No. 323099
- % Identity 78.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4441
- gi No. 3319905
- % Identity 77.2
- Alignment Length 123
- Location of Alignment in SEQ ID NO 376: from 1 to 86
  
- Alignment No. 4442
- gi No. 3320190
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 376: from 65 to 126
  
- Alignment No. 4443
- gi No. 3320196

- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 376: from 65 to 126
  
- Alignment No. 4444
- gi No. 3320202
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 376: from 65 to 126
  
- Alignment No. 4445
- gi No. 3320234
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 376: from 65 to 126
  
- Alignment No. 4446
- gi No. 3320240
- % Identity 70.3
- Alignment Length 64
- Location of Alignment in SEQ ID NO 376: from 65 to 126
  
- Alignment No. 4447
- gi No. 3341415
- % Identity 77.7
- Alignment Length 166
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4448
- gi No. 3341429
- % Identity 76.6
- Alignment Length 124
- Location of Alignment in SEQ ID NO 376: from 1 to 87
  
- Alignment No. 4449
- gi No. 3348075
- % Identity 77.6
- Alignment Length 134
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4450
- gi No. 3399724
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4451
- gi No. 345389
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4452
- gi No. 3688132
- % Identity 74.1
- Alignment Length 143
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4453
- gi No. 3688134
- % Identity 74.1

- Alignment Length 143
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4454
- gi No. 3688136
- % Identity 74.1
- Alignment Length 143
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4455
- gi No. 3688138
- % Identity 74.1
- Alignment Length 143
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4456
- gi No. 3688140
- % Identity 73.4
- Alignment Length 143
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4457
- gi No. 3688146
- % Identity 74.1
- Alignment Length 143
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4458
- gi No. 3688540
- % Identity 74.8
- Alignment Length 143
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4459
- gi No. 3745822
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4460
- gi No. 3790449
- % Identity 78.7
- Alignment Length 178
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4461
- gi No. 3790451
- % Identity 78.1
- Alignment Length 178
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4462
- gi No. 3790453
- % Identity 77.5
- Alignment Length 178
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4463
- gi No. 3790456
- % Identity 77
- Alignment Length 178

- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4464
- gi No. 386036
- % Identity 83.3
- Alignment Length 18
- Location of Alignment in SEQ ID NO 376: from 39 to 56
- Alignment No. 4465
- gi No. 3875182
- % Identity 78.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4466
- gi No. 388069
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4467
- gi No. 3885846
- % Identity 77.1
- Alignment Length 83
- Location of Alignment in SEQ ID NO 376: from 1 to 18
- Alignment No. 4468
- gi No. 3907633
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4469
- gi No. 3915083
- % Identity 83.1
- Alignment Length 195
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4470
- gi No. 3915087
- % Identity 72.6
- Alignment Length 197
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4471
- gi No. 3915093
- % Identity 70.7
- Alignment Length 198
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4472
- gi No. 3915883
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4473
- gi No. 3924793
- % Identity 76.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126



- Alignment No. 4474
- gi No. 3928816
- % Identity 77.7
- Alignment Length 103
- Location of Alignment in SEQ ID NO 376: from 26 to 126
  
- Alignment No. 4475
- gi No. 3978220
- % Identity 89.8
- Alignment Length 59
- Location of Alignment in SEQ ID NO 376: from 10 to 68
  
- Alignment No. 4476
- gi No. 3978222
- % Identity 86.4
- Alignment Length 59
- Location of Alignment in SEQ ID NO 376: from 10 to 68
  
- Alignment No. 4477
- gi No. 3986687
- % Identity 91.2
- Alignment Length 170
- Location of Alignment in SEQ ID NO 376: from 1 to 105
  
- Alignment No. 4478
- gi No. 398845
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4479
- gi No. 398847
- % Identity 81
- Alignment Length 195
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4480
- gi No. 398849
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4481
- gi No. 401163
- % Identity 71.8
- Alignment Length 195
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4482
- gi No. 401165
- % Identity 73.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4483
- gi No. 401166
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126

- Alignment No. 4484
- gi No. 4033472
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4485
- gi No. 4079637
- % Identity 79.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4486
- gi No. 4098319
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4487
- gi No. 4098321
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4488
- gi No. 4098323
- % Identity 86.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4489
- gi No. 4098329
- % Identity 86.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4490
- gi No. 4098331
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4491
- gi No. 4098333
- % Identity 83.6
- Alignment Length 189
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4492
- gi No. 4105696
- % Identity 84
- Alignment Length 194
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4493
- gi No. 4105829
- % Identity 79.2
- Alignment Length 178
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4494

- gi No. 4105831
- % Identity 79.2
- Alignment Length 178
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4495
- gi No. 4139172
- % Identity 78.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4496
- gi No. 4140272
- % Identity 77.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4497
- gi No. 4165490
- % Identity 80.3
- Alignment Length 76
- Location of Alignment in SEQ ID NO 376: from 53 to 126
  
- Alignment No. 4498
- gi No. 417854
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4499
- gi No. 417855
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4500
- gi No. 417857
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4501
- gi No. 417858
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4502
- gi No. 4210476
- % Identity 85.7
- Alignment Length 161
- Location of Alignment in SEQ ID NO 376: from 1 to 102
  
- Alignment No. 4503
- gi No. 4378761
- % Identity 78.7
- Alignment Length 141
- Location of Alignment in SEQ ID NO 376: from 1 to 76
  
- Alignment No. 4504
- gi No. 439735

- % Identity 76.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4505
- gi No. 4415990
- % Identity 87
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4506
- gi No. 4415992
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4507
- gi No. 4415994
- % Identity 86.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4508
- gi No. 4415996
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4509
- gi No. 4455142
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4510
- gi No. 4507729
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4511
- gi No. 4558495
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4512
- gi No. 464850
- % Identity 82.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4513
- gi No. 464851
- % Identity 82.6
- Alignment Length 161
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4514
- gi No. 464852
- % Identity 81.3

- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4515
- gi No. 464854
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4516
- gi No. 472314
- % Identity 76.7
- Alignment Length 86
- Location of Alignment in SEQ ID NO 376: from 43 to 126
- Alignment No. 4517
- gi No. 472316
- % Identity 76.7
- Alignment Length 86
- Location of Alignment in SEQ ID NO 376: from 43 to 126
- Alignment No. 4518
- gi No. 472318
- % Identity 74.4
- Alignment Length 86
- Location of Alignment in SEQ ID NO 376: from 43 to 126
- Alignment No. 4519
- gi No. 472353
- % Identity 70.9
- Alignment Length 86
- Location of Alignment in SEQ ID NO 376: from 43 to 126
- Alignment No. 4520
- gi No. 472357
- % Identity 70.9
- Alignment Length 86
- Location of Alignment in SEQ ID NO 376: from 43 to 126
- Alignment No. 4521
- gi No. 472378
- % Identity 74.4
- Alignment Length 86
- Location of Alignment in SEQ ID NO 376: from 43 to 126
- Alignment No. 4522
- gi No. 478328
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4523
- gi No. 4884102
- % Identity 71.2
- Alignment Length 73
- Location of Alignment in SEQ ID NO 376: from 56 to 126
- Alignment No. 4524
- gi No. 515692
- % Identity 78.8
- Alignment Length 66

- Location of Alignment in SEQ ID NO 376: from 63 to 126
- Alignment No. 4525
- gi No. 5174735
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4526
- gi No. 5174737
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4527
- gi No. 5174739
- % Identity 79.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4528
- gi No. 542388
- % Identity 74.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4529
- gi No. 549053
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4530
- gi No. 549054
- % Identity 72.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4531
- gi No. 5524661
- % Identity 77.1
- Alignment Length 175
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4532
- gi No. 5668667
- % Identity 82.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4533
- gi No. 5668669
- % Identity 84.5
- Alignment Length 194
- Location of Alignment in SEQ ID NO 376: from 1 to 126
- Alignment No. 4534
- gi No. 5668671
- % Identity 84.9
- Alignment Length 186
- Location of Alignment in SEQ ID NO 376: from 1 to 126

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- Alignment No. 4535
- gi No. 567053
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4536
- gi No. 5726087
- % Identity 76.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 376: from 1 to 32
  
- Alignment No. 4537
- gi No. 5726091
- % Identity 73.2
- Alignment Length 82
- Location of Alignment in SEQ ID NO 376: from 1 to 17
  
- Alignment No. 4538
- gi No. 5726092
- % Identity 74.2
- Alignment Length 93
- Location of Alignment in SEQ ID NO 376: from 1 to 28
  
- Alignment No. 4539
- gi No. 5726105
- % Identity 75.3
- Alignment Length 97
- Location of Alignment in SEQ ID NO 376: from 1 to 32
  
- Alignment No. 4540
- gi No. 586076
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4541
- gi No. 586077
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4542
- gi No. 586078
- % Identity 86
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4543
- gi No. 603436
- % Identity 79.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4544
- gi No. 624292
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126

- Alignment No. 4545
- gi No. 629790
- % Identity 84.4
- Alignment Length 135
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4546
- gi No. 629791
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4547
- gi No. 629806
- % Identity 86.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4548
- gi No. 629838
- % Identity 81
- Alignment Length 195
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4549
- gi No. 629839
- % Identity 83.4
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4550
- gi No. 629840
- % Identity 87
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4551
- gi No. 629841
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4552
- gi No. 630461
- % Identity 80.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4553
- gi No. 630801
- % Identity 80.8
- Alignment Length 182
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4554
- gi No. 730900
- % Identity 71
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4555



- gi No. 730902
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4556
- gi No. 797283
- % Identity 71.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4557
- gi No. 81816
- % Identity 82.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4558
- gi No. 81952
- % Identity 83.9
- Alignment Length 192
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4559
- gi No. 829169
- % Identity 83.9
- Alignment Length 194
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4560
- gi No. 829213
- % Identity 81.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4561
- gi No. 83721
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4562
- gi No. 83798
- % Identity 74.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4563
- gi No. 83945
- % Identity 72.5
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4564
- gi No. 84075
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4565
- gi No. 84172

- % Identity 81.9
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4566
- gi No. 84173
- % Identity 81.6
- Alignment Length 190
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4567
- gi No. 84248
- % Identity 77.7
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4568
- gi No. 84335
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4569
- gi No. 849160
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4570
- gi No. 860916
- % Identity 72.8
- Alignment Length 180
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4571
- gi No. 86468
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4572
- gi No. 86471
- % Identity 78.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4573
- gi No. 91858
- % Identity 79.8
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4574
- gi No. 92930
- % Identity 80.3
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4575
- gi No. 984564
- % Identity 72.1

- Alignment Length 86
- Location of Alignment in SEQ ID NO 376: from 43 to 126
  
- Alignment No. 4576
- gi No. 984572
- % Identity 73.6
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4577
- gi No. 986926
- % Identity 74.4
- Alignment Length 86
- Location of Alignment in SEQ ID NO 376: from 43 to 126
  
- Alignment No. 4578
- gi No. 986933
- % Identity 73.3
- Alignment Length 86
- Location of Alignment in SEQ ID NO 376: from 43 to 126
  
- Alignment No. 4579
- gi No. 986935
- % Identity 72.1
- Alignment Length 86
- Location of Alignment in SEQ ID NO 376: from 43 to 126
  
- Alignment No. 4580
- gi No. 986937
- % Identity 70.9
- Alignment Length 86
- Location of Alignment in SEQ ID NO 376: from 43 to 126
  
- Alignment No. 4581
- gi No. 986954
- % Identity 70.9
- Alignment Length 86
- Location of Alignment in SEQ ID NO 376: from 43 to 126
  
- Alignment No. 4582
- gi No. 986959
- % Identity 73.1
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4583
- gi No. 986989
- % Identity 72.1
- Alignment Length 86
- Location of Alignment in SEQ ID NO 376: from 43 to 126
  
- Alignment No. 4584
- gi No. 99335
- % Identity 76.2
- Alignment Length 193
- Location of Alignment in SEQ ID NO 376: from 1 to 126
  
- Alignment No. 4585
- gi No. 99367
- % Identity 81.9
- Alignment Length 193

- Location of Alignment in SEQ ID NO 376: from 1 to 126

Maximum Length Sequence corresponding to clone ID 107768

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 377
- Ceres seq\_id 1498366

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 378
- Ceres seq\_id 1498367
- Location of start within SEQ ID NO 377: at 1 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 4586
- RNA recognition motif. (a.k.a. RRM, RBD, or RNP domain)
- Location within SEQ ID NO 378: from 27 to 99 aa.

(D) Related Amino Acid Sequences

- Alignment No. 4587
- gi No. 4455223
- % Identity 80.5
- Alignment Length 222
- Location of Alignment in SEQ ID NO 378: from 5 to 221

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 379
- Ceres seq\_id 1498368
- Location of start within SEQ ID NO 377: at 118 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 4588
- RNA recognition motif. (a.k.a. RRM, RBD, or RNP domain)
- Location within SEQ ID NO 379: from 1 to 60 aa.

(D) Related Amino Acid Sequences

- Alignment No. 4589
- gi No. 4455223
- % Identity 80.5
- Alignment Length 222
- Location of Alignment in SEQ ID NO 379: from 1 to 182

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 380
- Ceres seq\_id 1498369
- Location of start within SEQ ID NO 377: at 241 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 4590
- gi No. 4455223
- % Identity 80.5
- Alignment Length 222
- Location of Alignment in SEQ ID NO 380: from 1 to 141

Maximum Length Sequence corresponding to clone ID 107804

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 381
- Ceres seq\_id 1498370

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 382
- Ceres seq\_id 1498371
- Location of start within SEQ ID NO 381: at 584 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 4591
- gi No. 1172666
- % Identity 73.9
- Alignment Length 23
- Location of Alignment in SEQ ID NO 382: from 52 to 74
- Alignment No. 4592
- gi No. 131198
- % Identity 88.9
- Alignment Length 36
- Location of Alignment in SEQ ID NO 382: from 51 to 86
- Alignment No. 4593
- gi No. 131199
- % Identity 78.6
- Alignment Length 145
- Location of Alignment in SEQ ID NO 382: from 1 to 145
- Alignment No. 4594
- gi No. 3914442
- % Identity 89
- Alignment Length 145
- Location of Alignment in SEQ ID NO 382: from 1 to 145
- Alignment No. 4595
- gi No. 3914465
- % Identity 74.5
- Alignment Length 146
- Location of Alignment in SEQ ID NO 382: from 1 to 145
- Alignment No. 4596
- gi No. 397555
- % Identity 76.6
- Alignment Length 145
- Location of Alignment in SEQ ID NO 382: from 1 to 145
- Alignment No. 4597
- gi No. 407353
- % Identity 77.2
- Alignment Length 145
- Location of Alignment in SEQ ID NO 382: from 1 to 145
- Alignment No. 4598
- gi No. 407355
- % Identity 76.6
- Alignment Length 145
- Location of Alignment in SEQ ID NO 382: from 1 to 145
- Alignment No. 4599
- gi No. 416274
- % Identity 85.1
- Alignment Length 101
- Location of Alignment in SEQ ID NO 382: from 45 to 145

- Alignment No. 4600
- gi No. 445928
- % Identity 73.1
- Alignment Length 145
- Location of Alignment in SEQ ID NO 382: from 1 to 145
  
- Alignment No. 4601
- gi No. 445929
- % Identity 73.1
- Alignment Length 145
- Location of Alignment in SEQ ID NO 382: from 1 to 145
  
- Alignment No. 4602
- gi No. 478515
- % Identity 91.7
- Alignment Length 24
- Location of Alignment in SEQ ID NO 382: from 51 to 74
  
- Alignment No. 4603
- gi No. 478516
- % Identity 87.5
- Alignment Length 24
- Location of Alignment in SEQ ID NO 382: from 51 to 74

Maximum Length Sequence corresponding to clone ID 108415

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 383
- Ceres seq\_id 1498379

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 384
- Ceres seq\_id 1498380
- Location of start within SEQ ID NO 383: at 483 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 4604
- short chain dehydrogenase
- Location within SEQ ID NO 384: from 1 to 112 aa.

(D) Related Amino Acid Sequences

- Alignment No. 4605
- gi No. 2120780
- % Identity 70.6
- Alignment Length 17
- Location of Alignment in SEQ ID NO 384: from 77 to 93
  
- Alignment No. 4606
- gi No. 4115379
- % Identity 97.2
- Alignment Length 290
- Location of Alignment in SEQ ID NO 384: from 1 to 154

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 385
- Ceres seq\_id 1498381
- Location of start within SEQ ID NO 383: at 552 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 4607
- short chain dehydrogenase

- Location within SEQ ID NO 385: from 1 to 89 aa.

(D) Related Amino Acid Sequences

- Alignment No. 4608
- gi No. 2120780
- % Identity 70.6
- Alignment Length 17
- Location of Alignment in SEQ ID NO 385: from 54 to 70
  
- Alignment No. 4609
- gi No. 4115379
- % Identity 97.2
- Alignment Length 290
- Location of Alignment in SEQ ID NO 385: from 1 to 131

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 386
- Ceres seq\_id 1498382
- Location of start within SEQ ID NO 383: at 705 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 4610
- gi No. 2120780
- % Identity 70.6
- Alignment Length 17
- Location of Alignment in SEQ ID NO 386: from 3 to 19
  
- Alignment No. 4611
- gi No. 4115379
- % Identity 97.2
- Alignment Length 290
- Location of Alignment in SEQ ID NO 386: from 1 to 80

Maximum Length Sequence corresponding to clone ID 108529

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 387
- Ceres seq\_id 1498383

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 388
- Ceres seq\_id 1498384
- Location of start within SEQ ID NO 387: at 108 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 4612
- ubiE/COQ5 methyltransferase family
- Location within SEQ ID NO 388: from 132 to 229 aa.

(D) Related Amino Acid Sequences

- Alignment No. 4613
- gi No. 2832402
- % Identity 99.1
- Alignment Length 322
- Location of Alignment in SEQ ID NO 388: from 1 to 322
  
- Alignment No. 4614
- gi No. 3201619
- % Identity 99.4
- Alignment Length 322

- Location of Alignment in SEQ ID NO 388: from 1 to 322

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 389
- Ceres seq\_id 1498385
- Location of start within SEQ ID NO 387: at 417 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 4615
- ubiE/COQ5 methyltransferase family
- Location within SEQ ID NO 389: from 29 to 126 aa.

(D) Related Amino Acid Sequences

- Alignment No. 4616
- gi No. 2832402
- % Identity 99.1
- Alignment Length 322
- Location of Alignment in SEQ ID NO 389: from 1 to 219
- Alignment No. 4617
- gi No. 3201619
- % Identity 99.4
- Alignment Length 322
- Location of Alignment in SEQ ID NO 389: from 1 to 219

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 390
- Ceres seq\_id 1498386
- Location of start within SEQ ID NO 387: at 561 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 4618
- ubiE/COQ5 methyltransferase family
- Location within SEQ ID NO 390: from 1 to 78 aa.

(D) Related Amino Acid Sequences

- Alignment No. 4619
- gi No. 2832402
- % Identity 99.1
- Alignment Length 322
- Location of Alignment in SEQ ID NO 390: from 1 to 171
- Alignment No. 4620
- gi No. 3201619
- % Identity 99.4
- Alignment Length 322
- Location of Alignment in SEQ ID NO 390: from 1 to 171

Maximum Length Sequence corresponding to clone ID 108720

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 391
- Ceres seq\_id 1498387

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 392
- Ceres seq\_id 1498388
- Location of start within SEQ ID NO 391: at 442 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)



(D) Related Amino Acid Sequences

- Alignment No. 4621
- gi No. 5430753
- % Identity 100
- Alignment Length 127
- Location of Alignment in SEQ ID NO 392: from 1 to 127

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 393
- Ceres seq\_id 1498389
- Location of start within SEQ ID NO 391: at 448 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

- Alignment No. 4622
- gi No. 5430753
- % Identity 100
- Alignment Length 127
- Location of Alignment in SEQ ID NO 393: from 1 to 125

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 394
- Ceres seq\_id 1498390
- Location of start within SEQ ID NO 391: at 791 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

Maximum Length Sequence corresponding to clone ID 109061

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 395
- Ceres seq\_id 1498391

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 396
- Ceres seq\_id 1498392
- Location of start within SEQ ID NO 395: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

(D) Related Amino Acid Sequences

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 397
- Ceres seq\_id 1498393
- Location of start within SEQ ID NO 395: at 604 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 4623
- NADH ubiquinone oxidoreductase, 20 Kd subunit
- Location within SEQ ID NO 397: from 21 to 134 aa.

(D) Related Amino Acid Sequences

- Alignment No. 4624
- gi No. 1171865
- % Identity 82.8
- Alignment Length 145
- Location of Alignment in SEQ ID NO 397: from 1 to 143

- Alignment No. 4625
- gi No. 1171866
- % Identity 77.6
- Alignment Length 205
- Location of Alignment in SEQ ID NO 397: from 1 to 143
  
- Alignment No. 4626
- gi No. 2258365
- % Identity 86.9
- Alignment Length 145
- Location of Alignment in SEQ ID NO 397: from 1 to 143
  
- Alignment No. 4627
- gi No. 244280
- % Identity 90.9
- Alignment Length 33
- Location of Alignment in SEQ ID NO 397: from 66 to 98
  
- Alignment No. 4628
- gi No. 2499327
- % Identity 83.6
- Alignment Length 183
- Location of Alignment in SEQ ID NO 397: from 1 to 143
  
- Alignment No. 4629
- gi No. 2499328
- % Identity 92.4
- Alignment Length 145
- Location of Alignment in SEQ ID NO 397: from 1 to 143
  
- Alignment No. 4630
- gi No. 266656
- % Identity 84.1
- Alignment Length 132
- Location of Alignment in SEQ ID NO 397: from 1 to 130
  
- Alignment No. 4631
- gi No. 2764632
- % Identity 78.5
- Alignment Length 144
- Location of Alignment in SEQ ID NO 397: from 1 to 143
  
- Alignment No. 4632
- gi No. 3024249
- % Identity 73.1
- Alignment Length 145
- Location of Alignment in SEQ ID NO 397: from 1 to 143
  
- Alignment No. 4633
- gi No. 3025802
- % Identity 80.1
- Alignment Length 136
- Location of Alignment in SEQ ID NO 397: from 1 to 133
  
- Alignment No. 4634
- gi No. 3282560
- % Identity 82.2
- Alignment Length 135
- Location of Alignment in SEQ ID NO 397: from 1 to 133
  
- Alignment No. 4635

- gi No. 3342734
- % Identity 80.7
- Alignment Length 145
- Location of Alignment in SEQ ID NO 397: from 1 to 143
  
- Alignment No. 4636
- gi No. 3860916
- % Identity 80.6
- Alignment Length 139
- Location of Alignment in SEQ ID NO 397: from 1 to 137
  
- Alignment No. 4637
- gi No. 409251
- % Identity 83.7
- Alignment Length 135
- Location of Alignment in SEQ ID NO 397: from 1 to 133
  
- Alignment No. 4638
- gi No. 5306137
- % Identity 70.7
- Alignment Length 140
- Location of Alignment in SEQ ID NO 397: from 1 to 134
  
- Alignment No. 4639
- gi No. 5650735
- % Identity 83
- Alignment Length 135
- Location of Alignment in SEQ ID NO 397: from 1 to 133
  
- Alignment No. 4640
- gi No. 89671
- % Identity 81.5
- Alignment Length 54
- Location of Alignment in SEQ ID NO 397: from 64 to 117

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 398
- Ceres seq\_id 1498394
- Location of start within SEQ ID NO 395: at 637 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 4641
- NADH ubiquinone oxidoreductase, 20 Kd subunit
- Location within SEQ ID NO 398: from 10 to 123 aa.

(D) Related Amino Acid Sequences

- Alignment No. 4642
- gi No. 1171865
- % Identity 82.8
- Alignment Length 145
- Location of Alignment in SEQ ID NO 398: from 1 to 132
  
- Alignment No. 4643
- gi No. 1171866
- % Identity 77.6
- Alignment Length 205
- Location of Alignment in SEQ ID NO 398: from 1 to 132
  
- Alignment No. 4644
- gi No. 2258365

- % Identity 86.9
- Alignment Length 145
- Location of Alignment in SEQ ID NO 398: from 1 to 132
  
- Alignment No. 4645
- gi No. 244280
- % Identity 90.9
- Alignment Length 33
- Location of Alignment in SEQ ID NO 398: from 55 to 87
  
- Alignment No. 4646
- gi No. 2499327
- % Identity 83.6
- Alignment Length 183
- Location of Alignment in SEQ ID NO 398: from 1 to 132
  
- Alignment No. 4647
- gi No. 2499328
- % Identity 92.4
- Alignment Length 145
- Location of Alignment in SEQ ID NO 398: from 1 to 132
  
- Alignment No. 4648
- gi No. 266656
- % Identity 84.1
- Alignment Length 132
- Location of Alignment in SEQ ID NO 398: from 1 to 119
  
- Alignment No. 4649
- gi No. 2764632
- % Identity 78.5
- Alignment Length 144
- Location of Alignment in SEQ ID NO 398: from 1 to 132
  
- Alignment No. 4650
- gi No. 3024249
- % Identity 73.1
- Alignment Length 145
- Location of Alignment in SEQ ID NO 398: from 1 to 132
  
- Alignment No. 4651
- gi No. 3025802
- % Identity 80.1
- Alignment Length 136
- Location of Alignment in SEQ ID NO 398: from 1 to 122
  
- Alignment No. 4652
- gi No. 3282560
- % Identity 82.2
- Alignment Length 135
- Location of Alignment in SEQ ID NO 398: from 1 to 122
  
- Alignment No. 4653
- gi No. 3342734
- % Identity 80.7
- Alignment Length 145
- Location of Alignment in SEQ ID NO 398: from 1 to 132
  
- Alignment No. 4654
- gi No. 3860916
- % Identity 80.6

- Alignment Length 139
- Location of Alignment in SEQ ID NO 398: from 1 to 126
  
- Alignment No. 4655
- gi No. 409251
- % Identity 83.7
- Alignment Length 135
- Location of Alignment in SEQ ID NO 398: from 1 to 122
  
- Alignment No. 4656
- gi No. 5306137
- % Identity 70.7
- Alignment Length 140
- Location of Alignment in SEQ ID NO 398: from 1 to 123
  
- Alignment No. 4657
- gi No. 5650735
- % Identity 83
- Alignment Length 135
- Location of Alignment in SEQ ID NO 398: from 1 to 122
  
- Alignment No. 4658
- gi No. 89671
- % Identity 81.5
- Alignment Length 54
- Location of Alignment in SEQ ID NO 398: from 53 to 106

Maximum Length Sequence corresponding to clone ID 109919

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 399
- Ceres seq\_id 1498395

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 400
- Ceres seq\_id 1498396
- Location of start within SEQ ID NO 399: at 413 nt.

(C) Nomination and Annotation of Domains within Predicted Polypeptide(s)

- Alignment No. 4659
- Pyruvate kinase
- Location within SEQ ID NO 400: from 19 to 461 aa.

(D) Related Amino Acid Sequences

- Alignment No. 4660
- gi No. 2497540
- % Identity 76.3
- Alignment Length 418
- Location of Alignment in SEQ ID NO 400: from 71 to 488
  
- Alignment No. 4661
- gi No. 2497542
- % Identity 76.2
- Alignment Length 470
- Location of Alignment in SEQ ID NO 400: from 19 to 488

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 401
- Ceres seq\_id 1498397
- Location of start within SEQ ID NO 399: at 443 nt.

(C) Nomination and Annotation of Domains within Predicted  
Polypeptide(s)

- Alignment No. 4662
- Pyruvate kinase
- Location within SEQ ID NO 401: from 9 to 451 aa.

(D) Related Amino Acid Sequences

- Alignment No. 4663
- gi No. 2497540
- % Identity 76.3
- Alignment Length 418
- Location of Alignment in SEQ ID NO 401: from 61 to 478
- Alignment No. 4664
- gi No. 2497542
- % Identity 76.2
- Alignment Length 470
- Location of Alignment in SEQ ID NO 401: from 9 to 478

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 402
- Ceres seq\_id 1498398
- Location of start within SEQ ID NO 399: at 518 nt.

(C) Nomination and Annotation of Domains within Predicted  
Polypeptide(s)

- Alignment No. 4665
- Pyruvate kinase
- Location within SEQ ID NO 402: from 1 to 426 aa.

(D) Related Amino Acid Sequences

- Alignment No. 4666
- gi No. 2497540
- % Identity 76.3
- Alignment Length 418
- Location of Alignment in SEQ ID NO 402: from 36 to 453
- Alignment No. 4667
- gi No. 2497542
- % Identity 76.2
- Alignment Length 470
- Location of Alignment in SEQ ID NO 402: from 1 to 453

Maximum Length Sequence corresponding to clone ID 109952

(A) Polynucleotide Sequence

- Pat. Appln. SEQ ID NO 403
- Ceres seq\_id 1498399

(B) Polypeptide Sequence

- Pat. Appln. SEQ ID NO 404
- Ceres seq\_id 1498400
- Location of start within SEQ ID NO 403: at 3 nt.

(C) Nomination and Annotation of Domains within Predicted  
Polypeptide(s)

- Alignment No. 4668
- Prion protein
- Location within SEQ ID NO 404: from 27 to 103 aa.
- Alignment No. 4669
- Prion protein
- Location within SEQ ID NO 404: from 53 to 149 aa.

- Alignment No. 4670
- Prion protein
- Location within SEQ ID NO 404: from 55 to 144 aa.
  
- Alignment No. 4671
- Prion protein
- Location within SEQ ID NO 404: from 62 to 155 aa.
  
- Alignment No. 4672
- Prion protein
- Location within SEQ ID NO 404: from 68 to 164 aa.
  
- Alignment No. 4673
- Prion protein
- Location within SEQ ID NO 404: from 78 to 178 aa.
  
- Alignment No. 4674
- Dehydrins
- Location within SEQ ID NO 404: from 23 to 146 aa.
  
- Alignment No. 4675
- Dehydrins
- Location within SEQ ID NO 404: from 55 to 180 aa.
  
- Alignment No. 4676
- Dehydrins
- Location within SEQ ID NO 404: from 67 to 180 aa.
  
- Alignment No. 4677
- Dehydrins
- Location within SEQ ID NO 404: from 81 to 165 aa.
  
- Alignment No. 4678
- Dehydrins
- Location within SEQ ID NO 404: from 81 to 180 aa.
  
- Alignment No. 4679
- Neurotransmitter-gated ion-channel
- Location within SEQ ID NO 404: from 47 to 104 aa.
  
- Alignment No. 4680
- Neurotransmitter-gated ion-channel
- Location within SEQ ID NO 404: from 131 to 181 aa.
  
- Alignment No. 4681
- 11-S plant seed storage protein
- Location within SEQ ID NO 404: from 3 to 174 aa.
  
- Alignment No. 4682
- 11-S plant seed storage protein
- Location within SEQ ID NO 404: from 17 to 170 aa.
  
- Alignment No. 4683
- 11-S plant seed storage protein
- Location within SEQ ID NO 404: from 49 to 180 aa.
  
- Alignment No. 4684
- 11-S plant seed storage protein
- Location within SEQ ID NO 404: from 53 to 165 aa.

- Alignment No. 4685
- 11-S plant seed storage protein
- Location within SEQ ID NO 404: from 53 to 170 aa.
  
- Alignment No. 4686
- 11-S plant seed storage protein
- Location within SEQ ID NO 404: from 53 to 180 aa.
  
- Alignment No. 4687
- 11-S plant seed storage protein
- Location within SEQ ID NO 404: from 54 to 162 aa.
  
- Alignment No. 4688
- 11-S plant seed storage protein
- Location within SEQ ID NO 404: from 54 to 179 aa.
  
- Alignment No. 4689
- 11-S plant seed storage protein
- Location within SEQ ID NO 404: from 56 to 180 aa.
  
- Alignment No. 4690
- 11-S plant seed storage protein
- Location within SEQ ID NO 404: from 57 to 162 aa.
  
- Alignment No. 4691
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 404: from 59 to 115 aa.
  
- Alignment No. 4692
- Collagen triple helix repeat (20 copies)
- Location within SEQ ID NO 404: from 65 to 122 aa.

(D) Related Amino Acid Sequences

- Alignment No. 4693
- gi No. 1076731
- % Identity 73.4
- Alignment Length 82
- Location of Alignment in SEQ ID NO 404: from 90 to 168
  
- Alignment No. 4694
- gi No. 1076731
- % Identity 70.6
- Alignment Length 88
- Location of Alignment in SEQ ID NO 404: from 82 to 166
  
- Alignment No. 4695
- gi No. 1150834
- % Identity 83.3
- Alignment Length 18
- Location of Alignment in SEQ ID NO 404: from 131 to 148
  
- Alignment No. 4696
- gi No. 1150834
- % Identity 83.3
- Alignment Length 18
- Location of Alignment in SEQ ID NO 404: from 139 to 156
  
- Alignment No. 4697
- gi No. 1150834
- % Identity 83.3
- Alignment Length 18